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THIS IS THE PURE AND ESSENTIAL EXTRACT FROM THE NATIVE DRUG.

It contains all the valuable medicinal properties of Opium, in natural combination, to the exclusion of all its noxious, deleterious and useless principles upon which its bad effects depend. It possesses all the sedative, anodyne, and anti-spasmodic powers of Opium.

To produce sleep and composure;

To relieve pain and irritation, nervous excitement and morbid irritability of body and mind;

To allay convulsive and spasmodic action, &c. &c.

And being purified from all the noxious and deleterious elements, its operation is attended by

No sickness of the stomach, no vomiting, no headache.

Nor any derangement of the constitution, or general health.

Hence its high superiority over Laudanum, Paregoric, Black Drop, Denarcotised Laudanum, and every other Opiate preparation.

The Elixir of Opium is also greatly superior to Morphine.

1. In its containing all the active medicinal virtues of Opium in native combination, and in its being its full representative, while Morphine, being only one of its principles, cannot alone, and that in an artificial state of combination too, produce all the characteristic effects of so triumphant a remedy, when four or five of its other valuable principles are excluded.

2. In its effect the Elixir is more characteristic, permanent and uniform than any of the *artificial compounds* of Morphene.

3. And as a *Preparation*, it is not liable to decompose or deteriorate like the *Solutions* of Morphine; and thus is obviated a serious objection, which has prevented the latter from being used with precision and effect.

To speak summarily, the Elixir of Opium, as a remedy, may be adopted in all cases in which Opium or its preparations are administered, with the certainty of obtaining all their salutary and happy effects, without being followed by their distressing and pernicious consequences.

The following testimonial, recently received, embraces several interesting and very important facts connected with the administration of the Elixir of Opium; and it is believed the views expressed by Dr. Webb will accord with the experience of every Physician who may adopt the use of this truly valuable remedial agent in his practice:

Hempstead, L. I., July 7, 1846.

MESSRS. A. B. & D. SANDS,

Gentlemen,—I regret that urgent and unavoidable engagements have prevented me from answering yours before, requesting my opinion of McMUNN'S ELIXIR OF OPIUM, or any facts with respect to its operation in my practice. I have frequently witnessed its effects in cases which resisted every other remedy; and I might cite a number of instances in which it seemed to act like a charm in allaying the most dangerous symptoms when other means had been tried in vain. I have been in the habit of using it more or less in my practice, ever since it was first presented to public use, and I know of *no substitute* for it in all those cases in which it is desirable to allay nervous irritability, either as an anodyne or soporific, without producing all the unpleasant consequences incident to the narcotic property of Opium. A case occurred recently, in which the use of Morphine was followed by a state resembling catalepsy. The patient remained insensible for five hours after taking a moderate dose, with a complete suspension of sensorial power or volition, without my discovering the causes; but as the effects of the Morphine subsided, the pains for which it was given returned with such severity that the dose was repeated, and the same results followed. I substituted the Elixir, and she was perfectly free from all unpleasant results afterwards, and completely relieved.

Another case, in which every other form of Opium had been tried before I was called, was relieved by McMUNN'S ELIXIR. The patient was a lady who had been vomiting incessantly for two or three days. She cautioned me not to prescribe any preparation of Opium, insisting that it would make her worse. I ventured, however, to try it without her knowledge, and she was at once relieved, falling into a delightful slumber, without feeling any other than the desired effect, so that as an anti-emetic it is invaluable. I might add a variety of other cases, but the opinions expressed in the testimonials you have already adduced are sufficient to convince the most sceptical that, when judiciously administered, it is superior to all other articles in use for particular conditions.

Very respectfully yours, EDWIN WEBB, M. D.

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DR. AYRES' CASE OF EXSTROPHY OR MALFORMATION OF THE BLADDER, BEFORE OPERATION.

FIG. 1.

a, BLADDER EXPOSED FORMING A BRIGHT VERMILION TUMOR.
b, *b*, NYMPHÆ OR LABIA MINORA. *o*, *o*, LABIA MAJORA. *c*, VAGINA.
d, ANUS.

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DR. AYRES' CASE OF EXSTROPHY OR MALFORMATION OF THE BLADDER, AFTER OPERATION.

FIG. 2.

a, LINEAR CICATRIX FORMED BY THE FLAPS COVERING THE BLADDER.
b, *b*, NYMPHÆ BROUGHT TOGETHER, AND ENCLOSED BY THE VULVA.

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AMERICAN

MEDICAL GAZETTE.

Vol. X. FEBRUARY, 1859. No. 2.

ORIGINAL DEPARTMENT.

Congenital Exstrophy of the Urinary Bladder, Complicated with Prolapsus Uteri following Pregnancy: Successfully Treated by a New Plastic Operation. (Illustrated.) By DANIEL AYRES, M.D., LL.D., Surgeon to the Long Island College Hospital, &c., &c.

Exstrophy, or extroversion of the urinary bladder, is a congenital malformation, which Prof. Gross, in his excellent work on the Urinary Organs, says "amounts to a hideous monstrosity."

Such cases are, comparatively, seldom met with, except in large cities, to which they resort for pecuniary assistance. Excluded as they are from the avenues of honest industry by a condition at once disgusting and repulsive, they are (unless born in affluence) literally outcasts from society, and may occasionally be found ekeing out a precarious subsistence by exhibiting themselves as surgical curiosities to the classes of our various medical schools.

Little is to be found on this subject in systematic works of surgery; but excellent descriptive monographs have been contributed by different countries. Among them will be found that of Dr. Monro, contained in Vol. I. of the Edinburgh Medical and Surgical Journal. In France, Thiebault has contributed some cases; and an article by Breschat will be found in the Dic. des Med. Sciences, tome xiv.

Von Ammon has recorded instances in his "Congenital Diseases of Man," vol. 1, p. 14; and Heyfelder has furnished a paper on the subject to the transactions of the Royal Leopoldinean Academy of Natural Philosophers.

In the London Medical Gazette for 1845, Prof. Errichsen details a series of highly interesting experiments on the elimination of differ-

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ent substances by the kidneys, in a person under his inspection with this deformity.

Other cases have been noted in various professional journals from time to time. The general type to be observed in all the instances which have been described is much the same; shades of difference and peculiarities of sex constituting the chief points of variety.

The essential characteristic of these malformations consists in a deficiency or absence of the symphesis and bodies of the pubis. The osseous keystone of the pelvic arch in front, which is the natural point of insertion for the abdominal parietes being absent, the pelvic bones terminate abruptly on either side, leaving a hiatus varying from two to five inches in width. The recti, and other abdominal muscles necessarily inclining off, to be inserted at these abutments, removes all anterior support from the viscera situated in this region. The bladder is consequently pressed forward during the early period of fœtal life to occupy the vacant space, and becomes fused with the integuments at that point where the placental vessels traverse the abdominal walls.

But it may be pertinently asked, What is the *initial* cause of this failure of ossific union at the pubis? It is scarcely an answer to such a question to call it "an arrest of nutrition," for we naturally seek to know the *cause* of such "an arrest."

It has been noticed that the umbilicus is uniformly absent in all these cases, proving that the mechanism of the maternal and fœtal union is intimately connected with, if it does not determine this malformation.

An instance occurred in the practice of Dr. McPhail, of this city, in which the urachus was continued several inches into the umbilical cord, and was therefore included very naturally within the ligature applied at the usual point of deligation. A fatal peritonitis was the result, and a post-mortem examination revealed the fact. Now, may not such an occasional prolongation of the urachus into the cord be looked upon as an intermediate form of development, which, when aggravated, may determine the difficulty in question, acting in this position as a foreign body to prevent the osseous union and consolidation of the pubic arch? Such an explanation of the rationale of this species of deformity certainly requires no inordinate stretch of the imagination, and may be worthy of attention in the absence of any more plausible hypothesis.

The absence of a bony support is partially supplied by fibro-cellular tissue between the abutments, whilst above there is probably an ex-

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pansion of the aponeurosis of the external oblique, conjoined tendons, fascia transversalis, and peritoneum, all of which are firmly attached around the base of the posterior wall of the bladder, which is here gathered into an oblong, oval body varying in size, from a filbert to a large fist. This tumor is found to become larger when the patient is standing, and smaller when the recumbent position is assumed. It exhibits a deep vermilion color; is exquisitely sensitive to the touch; bleeding upon very slight irritation, and surrounded by integument which near its base resembles mucous membrane. In elderly subjects it is said that the surface of this tumor is sometimes changed, becoming invested with a kind of cuticle, whilst its sensibility is greatly diminished. On close inspection, the mouths of the ureters will be detected emerging from the inferior portion of the tumor near its base, from which urine constantly dribbles, unless the parts are irritated or pressed upon, when it is discharged per saltum. This constant wetting of the parts is not productive of so much irritation or excoriation as might be anticipated, provided tolerable attention is paid to cleanliness, and the parts are not subjected to much friction; for it seems that the renal secretion exhibits less acrimony when immediately extruded from the kidneys, and is consequently indebted for much of this quality to its retention in the bladder, where probably some of its watery constituents are reabsorbed, and the remainder becomes subject to chemical changes.

It will be observed that the integuments which are here usually covered with hair, are, as it were, split, whilst on both sides the hair is found growing luxuriantly in lines curving outwards towards the iliac spines.

It has been remarked, that the greatest variations among these cases arise from the imperfect development, malposition, or entire absence of different portions of the genital organs; and the amount of venereal desire seems to be in proportion to their perfection. In the male, a rudimentary penis and urethra are generally discovered below the cystic tumor, and the testicles, if present, are in an equally undeveloped condition.

In the female, the genital organs are also occasionally very imperfectly formed. The clitoris is most frequently absent, or not to be detected, and, as we might expect, there is seldom any trace of a urethra. In other respects, the organs may be normal; the uterus, ovaries, and vagina being perfect, and the subject capable of procreation, as was shown in one of the cases related by Thiebault, and noted as a very

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interesting and remarkable fact. Similar capacities existed in the subject of the present memoir, and a hope of mitigating the deplorable results of parturition first prompted an extension of surgical art to the melioration of a hitherto intractable deformity.

The patient (whose name is omitted by special request) was admitted to the Long Island College Hospital November 1st, 1858, and a history of the case recorded by the House Surgeon, Dr. Ostrander.

She is 28 years of age, born of healthy parents, both of whom were free from deformity; her height is below the average of females, and she is unmarried. She declares her health to have always been good, appetite and digestion excellent, bowels regular, and the catamenia in all respects normal.

She states that, on the 5th of July preceding, she was delivered of a well-developed child, having carried it to maturity without extraordinary difficulty.

Labor commenced with free hæmorrhage, (footling presentation,) and lasted two hours, at the end of which time the child was born, having died in process of delivery. Perineum uninjured.

She reports having made a tolerable recovery, though for a long time weak, and her present appearance is somewhat anæmic.

Shortly after she began walking about, symptoms of prolapsus uteri came on, becoming gradually worse, until the organ projected external to the vulva, attended with dorsal, dragging pain, difficulty of locomotion, and gastric disturbance.

In quest of relief, she entered the Brooklyn City Hospital on the 1st of September following her confinement, and remained there one month. Here she states that a variety of pessaries were tried, none of which could be retained, and finally a surgical operation was performed, the nature and character of which is not very apparent.*

Finally, a species of stem-pessary was contrived, which was intended to support the uterus, whilst kept in position by strings passed around the thighs. This, however, proved very inefficient—the uterus

* Since the above was in press, a short article, descriptive of this case, has appeared in the *Virginia Medical Journal* for January, 1859, written by the House Surgeon of that Institution. The writer states, that an attempt was made to retain the prolapsed uterus "by removing an inch of mucous membrane from the bottom and sides of the vulva, and uniting them by two figure of 8 sutures, which were removed on the sixth day, when no adhesion was found to have taken place." The writer continues: "The patient was allowed to get up on the fourteenth day, when the prolapsus was found to exist nearly as much as before," &c.

It is obvious that no effort was made to relieve the congenital deformity, and that she was discharged in much the same condition as when she entered.

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slipping by the instrument upon the slightest extra exertion. Moreover, the parts had now assumed an irritable condition, partly due to increased friction of the apparatus, and undue attention to cleanliness, added to the causes already noted; altogether her deplorable condition was scarcely susceptible of being made worse.

I may here remark, that the figures, both before and after the operation, have been photographed from accurate plaster casts, taken directly from the patient—a very difficult and delicate procedure, for which I am much indebted to the skill and kindness of my colleague, Dr. Bauer, and our valuable assistant, Mr. J. F. Esslinger.

Fig. 1, is an exact representation of the parts at the time of presentation to the clinical class of the Long Island College Hospital, for the purpose of critical examination. The prolapsus having been carefully and completely reduced, was found to retain its place so long as the patient maintained the recumbent position.

The distance between pubic abutments was estimated at about three inches.

The bladder (*a*) forming an oval, eliptical tumor, mammillated upon the surface, which in the recumbent position measured two inches in its long, and one and a quarter inches in its short diameter. This was soft, elastic, of bright vermilion color, and covered with a thick tenacious mucus; bleeding readily when rudely handled, and so exquisitely sensitive, that whilst under the full influence of chloroform, and insensible to the knife, a sponge passed over the exposed bladder excited reflex motions.

The integuments immediately surrounding the bladder were found red and puckered, but very soft, delicate, and free from hair between the bladder and point of sternum. The labia majora (*o. o.*), thick, fleshy, and luxuriantly covered with hair, were gathered into folds swelling away towards either thigh; these were carefully shaved previous to taking the cast and performing the operation.

The nymphæ occupied isolated positions on each side of the vulva, and are designated in all the figures by the letters *b. b.*

Between these and the vagina below no trace of clitoris or urethra could be distinguished, but the whole surface was covered with mucous membrane, continuous with the vaginal lining.

Here, then, we had to contend with two formidable difficulties, either of which was a problem in itself, viz., aggravated prolapsus from an entire absence of anterior support, added to the original congenital malformation.

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To form an estimate of the value attached to surgical operations in these cases, we cannot do better than quote the opinion of Prof. Errichsen, of University College, London. Having collected the experience of the profession on this topic, his eminent position at the centre of surgical science, added to his well known and extensively recognized erudition, renders him at once a reliable and compendious authority on the subject.

"This malformation," says he, "is incurable. Operations have been planned, and performed with a view of closing in the exposed bladder by plastic procedures, but they have *never* proved successful, and have terminated in some instances in the patient's death; they do not, therefore, afford much encouragement for repetition."

So unsatisfactory have been the results of these operations, that the profession has not been favored with their general plan, their details, nor the causes of failure. It must be evident, however, that operations based upon the principles of plastic surgery alone offer prospects of success.

The most probable source of failure, and one which challenged our early attention, was the disastrous result to be apprehended from urinary infiltration, which, by its irritating character, would necessarily destroy all prospect of union, if it did not induce extensive sloughing of the abdominal parietes: peritonitis and purulent phlebitis are likewise probable sources of danger, unless carefully guarded against. Indeed these may all become inevitable consequences of attempting to accomplish too much at one time; and it was therefore determined to arrange our proceedings with a special view, if possible, to avoid them. The indications which it was proposed to follow were:

1st. To form an anterior wall for the exposed bladder.

2d. To restore the urinary canal.

3d. To establish the anterior fourchette of the vulva.

4th. To supply means to prevent the prolapsus, and to collect the renal secretions.

The delicate character of the integuments above the bladder, and its well-known transmutability into the conditions of a mucous membrane, peculiarly adapted it to supply the anterior cystic wall, and thus fulfil the primary indication.

With these objects in view, the operative proceedings were divided into two stages.

The first consisted in raising a flap from the anterior portion of the abdomen, including the superficial fascia, turning its cuticular surface

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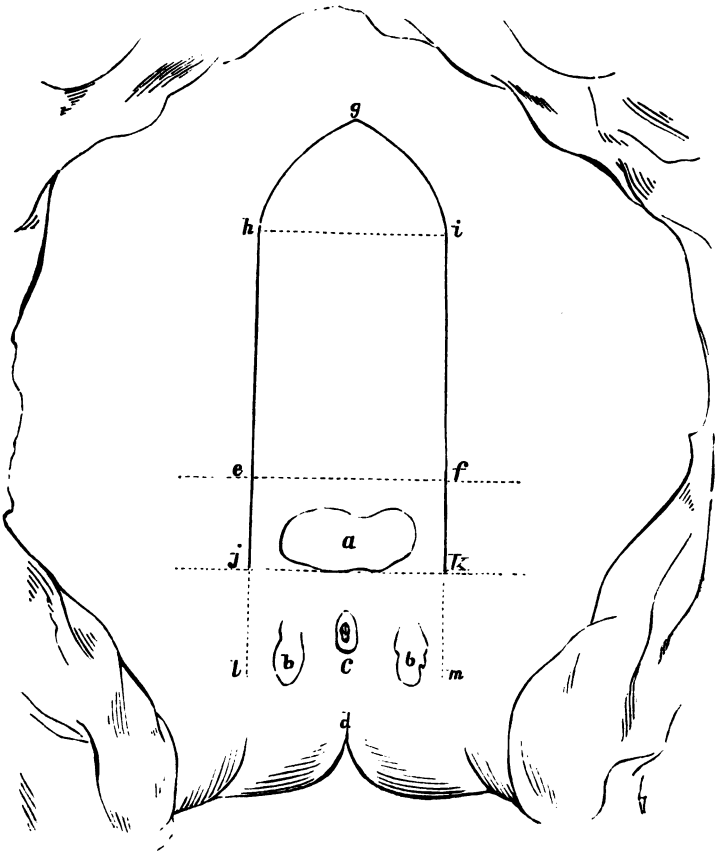
ILLUSTRATION OF DR. AYRES' PLASTIC OPERATION FOR EXSTROPHY OF THE BLADDER.

FIG. 3.



a, BLADDER. *b*, *b*, NYMPHÆ. *c*, VAGINA. *d*, ANUS.

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down over the exposed bladder as far as its inferior border, and securing the lateral union of the flap in that position, whilst a free exit below was maintained for the urinary discharge; an important result, still further assisted by the dependent situation of the outlet of the ureters already alluded to.

By these means it was proposed to accustom the highly sensitive bladder to a gradual and methodical compression, whilst the flap itself was insured ample space to undergo such swelling as might be anticipated from its new position, and the unusual stimulation of a new secretion. Time was likewise given for the necessary transmutation of tissues to make some progress.

The steps of this procedure will perhaps be better understood by a more detailed statement of the first operation in connection with the diagramatic plates, figs. 3 and 4.

It was performed on the 16th of November last, the patient being thoroughly under the influence of chloroform, and a sugar-loaf shaped flap having been previously marked out upon the abdominal integuments; its base *e. f.*, three inches in width, was situated three-fourths of an inch above the cystic tumor, and extended five inches in length, with its apex towards the ensiform cartilage. The dark line *e. h. g. i. f.*, (fig. 3,) indicates its form, position, and the line of incision.

This flap being left sufficiently large to meet the elevated form of the bladder, and allow for shrinkage, was quickly but carefully separated from its cellular attachments, down to the line *e. f.*, whilst two lateral incisions *e. j.* and *f. k.* were continued directly downwards, and towards the nymphæ, to serve as beds for receiving the sides of the new flap.

The integuments covering the lateral and inferior portions of the abdomen, extending from *g.* to *j.* on one side, and from *g.* to *k.* on the other, were now sufficiently separated from their cellular attachments to the muscles beneath to insure their sliding freely, and meeting without tension at the mesial line *g. N.*, (fig. 4.) When brought into this position they completely covered from view the raw surface of the flap already turned over, and investing the bladder, with the exception of a triangular space, *j. N. k.*, (fig. 4,) formed by the coaptation of the lateral flaps; this was temporarily covered by reflecting back upon itself the corresponding triangular free end of the deep flap, *j. c. k.*, (fig. 4,) and attaching it along the line *j. N. k.* Numerous points of interrupted suture were used to retain the parts in situ, assisted by long strips of adhesive plaster, compresses, and a retentive bandage around the body. It will be observed,

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that the lower portion of the cystic tumor was thus temporarily left free and partially exposed, whilst no portion of cut or denuded surface remained uncovered.

The patient received a large dose of opium, and was strictly maintained in the recumbent position upon a bed, properly protected; such additional measures being adopted as would secure cleanliness.

As the part subjected to operation began to swell, she complained of irritation and pressure upon the bladder, which, however, was promptly met with morphine alone, and subsided in the course of a few days. Now was exhibited the great importance of leaving the tumor partially uncovered, whilst all the cut surfaces were in close contact, and thus freed from the action of irritating secretions; important facts, duly dwelt upon and recently enforced with great stress by the distinguished Prof. Syme, of Edinburgh, whose contributions to the surgical treatment of the urinary organs have alone placed both hemispheres under permanent obligation to him.

On the fourth day after the operation all sutures were removed, the wounds having all healed by first intention or primary adhesion, with the exception of a spot the size of a ten cent piece, situated just above the point of the triangle, and where the deep flap had been reflected over the bladder. At this point the lateral abdominal flaps were necessarily raised up from the tissues beneath, and could not be brought into contact even by the use of compresses. This, however, granulated kindly, and was nearly cicatrized on the 7th of December, when the second and last operation was performed, as follows:

The patient, being under the influence of chloroform, the lower triangular flap *j. N. k.*, (fig. 4,) was dissected from its recent and temporary attachments, both lateral and deep, and turned down over the vulva, as indicated by the dotted line *j. c. k.*

Two incisions *j. l.* and *k. m.* were now carried from the external angles of this triangle, perpendicularly towards and terminating just behind the nymphæ, *b. b.*

The lateral flaps bounded by the lines *N. j. l.* and *N. k. m.*, and including the labia majora, were then freely dissected from over the abutments of the pubic bones, until they could be readily slid to meet each other at the central line *N. c.*, which, being a continuation of the line *g. N.*, reduced the whole to a single linear wound, occupying the "linea alba." See fig. 2.

During the operation several arterial branches bled freely, and were arrested by torsion and the free application of ice, after which the flaps were confined at the mesial line by points of interrupted

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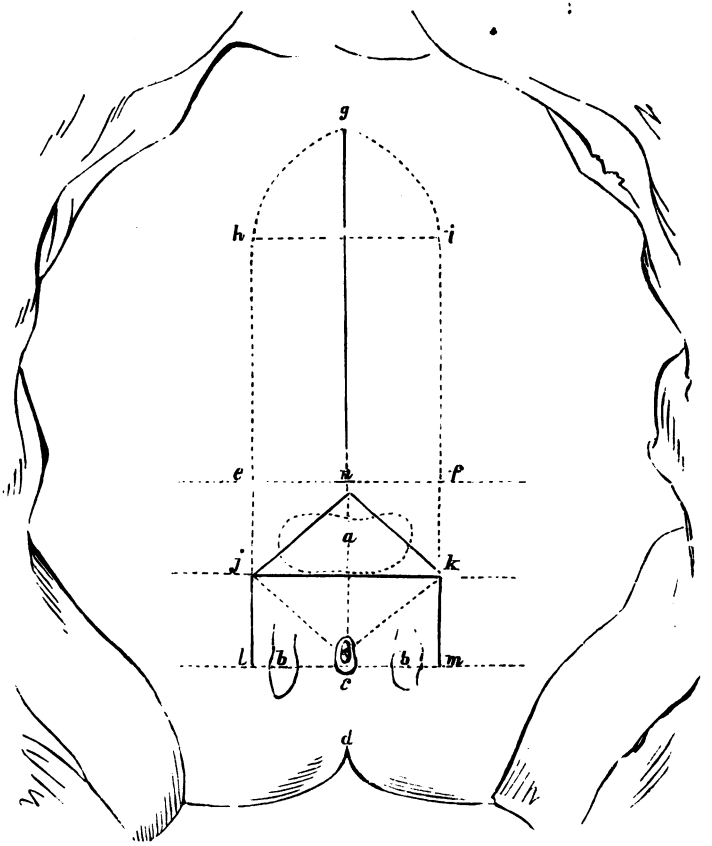
ILLUSTRATION OF DR. AYRES' PLASTIC OPERATION FOR EXSTROPHY OF THE BLADDER.

FIG. 4.



a, BLADDER COVERED BY DEEP FLAPS. *b*, *b*, NYMPHÆ. *c*, VAGINA. *d*, ANUS.

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suture; the most inferior one, viz., at *l.* and *m.*, being made to include the apex *c.* of the triangular flap.

Fearing to depend on sutures alone to secure the approximated flaps, and the use of adhesive plaster being excluded by the irregularity and position of the parts, the whole surface between the points of suture was hermetically encased by strips of patent lint, soaked in collodion, and accurately applied. In addition to this, pieces of muslin were by the same method firmly attached to the labia majora, at some distance from the mesial line, and to these suture silk was fastened in such a manner as to form a lacing across and over the wound. By means of this dressing all tension was removed from the sutures, urine was totally excluded, whilst rapid and perfect adhesion soon followed.

Thus a urinary canal was formed, which would admit the little finger to be passed up one and a half inches. The anterior fourchette of the vulva was firmly established, and the mons veneris assumed its prominent and natural appearance.

The last cast of the parts representing her present condition, (fig. 2,) was taken on the 4th of January, 1859, previous to which time, the parts being all firmly united, she was permitted freely to walk about, and left the hospital to spend the holidays with her friends. No artificial support whatever was applied in order to ascertain how far the operation would succeed in preventing the prolapsus.

After a severe test, the anterior fold of the vagina alone descended, and that for a short distance, forming a pale œdematous tumor, occupying the vulva, about the size of an English walnut. The anterior fourchette of the vulva remaining firm and resisting, a light oval pessary, made of vulcanized rubber, and perforated, was introduced into the vagina and readily retained in situ. After thorough trial, this was found to support the parts completely, and without the slightest uneasiness, even under active exertion and straining.

This was a better result than had been anticipated, inasmuch as it was intended to rely mainly upon a disc-shaped pessary, supported by a foot attached to a simple apparatus, which we had constructed, to act as a reservoir for the urine.

January 20th.—The patient was again examined at the hospital, in the presence of a number of medical gentlemen, she having walked a distance of two miles without experiencing any inconvenience. The parts were all found sound and firm, and her general health and spirits much improved.

156 Montague Place, Brooklyn.

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BOOK NOTICES.

TRANSACTIONS OF THE AMERICAN MEDICAL ASSOCIATION. Vol. XI. Philadelphia: 1858.

This formidable octavo, of 1,027 pages, has appeared, but our copy reaches us too late to allow of more than a brief statement of its contents, the variety and value of which will be found to be quite equal to any of its predecessors. It is printed in beautiful style, but has been delayed in its passage through the press by causes beyond the control of the publishing committee.

After the usual detail of the business at the late Annual Meeting in Washington, D.C., in May last, we have the following papers, viz:

1. President's Address. By Paul F. Eve, M.D.
2. Report on the Medical Topography and Epidemic Diseases of Kentucky. By W. L. Sutton, M.D.
3. Report on Epidemics of Ohio. By G. Mendenhall, M.D.
4. Report on the Topography and Epidemics of New Jersey. By Lyndon A. Smith, M.D.
5. Report on Medical Education. By J. R. Wood, M.D.
6. Report on Spontaneous Umbilical Hæmorrhage of the Newly Born. By J. F. Jenkins, M.D.
7. Report on Marriages of Consanguinity. By S. M. Bemiss, M.D.
8. Report on the Functions of the Cerebellum. By E. Andrews, M.D.
9. Report on the Treatment best adapted to each variety of Cataract. By Mark Stephenson, M.D.
10. Report on the Medical Jurisprudence of Insanity. By C. B. Coventry, M.D.
11. Report on the Law of Registration of Births, Marriages, and Deaths. By Edward Jarvis, M.D.
12. Report on the Nervous System in Febrile Diseases, and the Classification of Fevers, &c. By H. F. Campbell, M.D.
13. Report on Moral Insanity, in its Relations to Medical Jurisprudence. By D. Meredith Reese, M.D., LL.D., &c.
14. Report on Stomatitis Materna. By D. L. McGugin, M.D.
15. Report on the True Position and Value of Operative Surgery as a Therapeutic Agent. By J. B. Flint, M.D.
16. A Method of Preserving Membranous Pathological Specimens. By R. D. Arnold, M.D.
17. Letter of E. D. Fenner, M.D., to Paul F. Eve, M.D., President of the Association.
18. PRIZE ESSAYS, viz: The Clinical Study of the Heart-Sounds, in Health and Disease. By Austin Flint, M.D. And

Vision and some of its Anomalies, as revealed by the Ophthalmoscope. By M. A. Pallen, M.D.

The volume concludes with the plan of organization, Code of Ethics, and list of officers and permanent members.

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A TREATISE ON HUMAN PHYSIOLOGY, designed for the use of Students and Practitioners of Medicine. By John C. Dalton, Jr., M.D., Professor of Physiology and Microscopic Anatomy in the College of Physicians and Surgeons, of New York, &c., &c. Philadelphia: Blanchard & Lea. 1859.

This is a new and original work, though on a trite subject, and one in relation to which it may be said "of making books there is no end." And yet Dr. Dalton needed no apology for giving us another work on Physiology, especially as by excluding from his plan much that is unsettled, and more that is purely hypothetical in the science, he has made a book which is more readable and instructive to students as well as physicians, than any other we have seen.

The author is well known to be an enthusiast in physiological research, in the experimental part of which he has already made his mark, though comparatively a young man. As a writer he has few equals, and as a teacher no superior, while the work before us is chiefly the result of his own ardent and deligent study, his experimental facts being founded to a great extent upon personal observation. Of this the illustrations in the volume, numbering 254, are in evidence, nearly all of them being entirely new, and they are exquisitely done in the finest style of finished art. We take pleasure in expressing our high gratification at this new work emanating from New York, and trust that it is only the harbinger of other evidences like it, of the industry and literary capacity of many of our medical men. We shall be surprised and disappointed if Dr. Dalton's work does not receive high commendation from our brethren whose journals are capable of inserting critical reviews, for we are certain that it has strong claims to both novelty and merit.

A TREATISE ON DISEASES OF THE AIR-PASSAGES, &c. By Horace Green, M.D., LL.D., &c. New York: Wiley & Halsted. 1859.

Under the title of "Green on Bronchitis" this work has been well known for many years, and the author been extensively reviewed at home and abroad. A fourth edition has now been issued, revised and enlarged, with an appendix containing an epitome of the foreign works on kindred topics, and what is doing abroad by topical medication in laryngeal and tracheal disease. Whatever differences of opinion may exist among the profession, as to the extent to which topical medication is adapted, and may be made available, in anginose, tracheal, bronchial, and pulmonary affections, all now concur in the general views which Dr. Green has been so persistent in promulgating, and which he has been practically carrying out to an extraordinary extent. In France the subject is attracting great attention, and Dr. Green is there honored more than at home, for he has encountered in his own country very great, and even unscrupulous hostility, such as is the fate of all who practise a specialty, or claim any novel or exclusive pretensions in any department. His errors have been those incidental to riding any hobby, prompting him to run into extremes; but we doubt whether his experience has not corrected many of these, for we think this apparent in the new edition of his book. That he has merit is undeniable, and all must respect him for his perseverance in teaching what he believes, and in defending himself against every assault, relying, as he seems to do, that ultimately the profession will do him justice. The last edition of this book is the best, and is gotten up by the publishers in handsome style.

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THE SCIENCE AND ART OF SURGERY; being a Treatise on Surgical Injuries, Diseases, and Operations. By John Errichsen, Professor of Surgery, &c., in University College, London, &c. Philadelphia: Blanchard & Lea. 1859.

The present is an improved American edition, from the latest revision and enlargement by the author. The high character attained by the former issue of this book will be enhanced by the present issue, which is superior in every respect. Its typography is super-excellent, and the engravings, numbering more than 400, are admirably executed. It cannot be necessary to say more than that no surgical student should be without this new edition.

A PRACTICAL TREATISE ON THE DISEASES OF CHILDREN. By D. Francis Condie, M.D., &c. Philadelphia: Blanchard & Lea. 1858.

The success of this standard book, for such it is long destined to be, is a sufficient guarantee of its merits. A fifth edition has now been demanded, and the author has availed himself of the opportunity thus afforded to revise, enlarge, and improve it by extensive additions, which will be found pertinent and valuable, embodying everything recent in this department, whether at home or abroad. The publishers have done their part well in the issue of this beautiful volume.

FAVORITE PRESCRIPTIONS FROM AMERICAN PRACTITIONERS. By Horace Green, M.D., LL.D., President and Professor of the N. Y. Medical College, &c. New York: Wiley & Halsted. 1859.

This is one of a class of books of which we retain the opinion heretofore expressed, that they are neither meritorious nor useful. The apothecaries loudly complain of these prescriptions being numbered from 1 to 263, and so ordered; which they denounce as a ruse to make them buy the book, which could not have been intended by the author.

A TREATISE ON THE VENEREAL DISEASE. By John Hunter, F.R.S., with copious additions by Dr. Philip Ricord, of Paris. Translated and edited, with notes, by F. J. Bumstead, M.D., &c., of New York. Philadelphia: Blanchard & Lea. 1859.

This is the second edition, revised, of a work to which we have heretofore referred. Both Hunter and Ricord are recognized as authorities in this department, and the translator has aimed to do them both justice; and has included the recent lectures of Ricord on Chancres. We fancy that our syphilitic literature is now sufficiently extensive, and cannot subscribe to all that is now taught by recent writers, who are multiplying theories and trying experiments, the animus and the morale of which are at least questionable. This work, however, will be found to comprise everything really worth knowing on the subject, and as such we commend it to students.

LECTURES ON THE DISEASES OF WOMEN. By Charles West, M.D., &c. Part II. Diseases of the Ovaries, Vagina, Bladder and External Organs. Philadelphia: Blanchard & Lea. 1859.

Those who have read Part I. of these lectures will welcome the completion of the author's work by the issue of this volume. Nor will they be disappointed in the interesting and practical manner in which all the subjects are treated. We heartily recommend the book to both physicians and students, who cannot rise from its perusal without profit.

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LINDSAY & BLAKISTON'S DIARY AND MEMORANDA FOR 1859 reached us too late to repeat, at the beginning of the year, our high sense of its value to practitioners, founded on its constant use for many years. In none of the rival publications we have seen is there any claim to improvement. They are all but awkward imitations, and some of them encumbered with trash and quackery.

[We insert the following critique from the last number of the N. O. Medical News and Hospital Gazette, in proof that we are not alone in the views we have expressed in our last, of the books of Dr. Bigelow and Dr. Forbes. From other sources, including some of the ablest professional men in the country, we have received personal assurances of their approval of our criticisms.]

BRIEF EXPOSITIONS OF RATIONAL MEDICINE: to which is prefixed THE PARADISE OF DOCTORS—A Fable. By Jacob Bigelow, M.D., late President of the Massachusetts Medical Society, etc. Boston. 1858.

When we very recently noticed the receipt of Sir John Forbes' late book, entitled "Nature and Art in the Cure of Diseases," and, in the mildest terms we could, put our condemnation on it, we were in hopes that we should never again be called on to read a book, from a respectable source, so little calculated to do any good and so eminently calculated to do harm; so far from expecting to find a single respectable endorser of such a work, we have looked, with confidence, for nought but terms of condemnation from the pen of any and every respectable medical man who should deign to notice the book at all.

Who is Sir John Forbes? and what has he done? We will only detain the reader with answers almost as short as the questions themselves. Sir John Forbes is "Fellow of the Royal College of Physicians, London, and Physician of the Queen's household, etc., etc." Sir John Forbes has been a regular practitioner of medicine for fifty years, has amassed a princely fortune by practicing as other physicians do, and now issues a book to inform the world that art can effect nothing in the cure of disease—that nature does the whole work. Comment is scarcely necessary. To have maintained his position in the Queen's household he must have practiced medicine legitimately—he must have aided those who were really sick with the known useful appliances of our art: he must have given purgatives to overcome constipation, emetics to unload the stomach, quinine to prevent paroxysms of intermittent fever, etc., etc., etc.; and he must have vaccinated to prevent small-pox. If he administered these and many other known useful remedies, without believing in their efficacy, then was he receiving princely pay for the grossest deception; if he administered bread pills in their stead, and clandestinely, then was he not only guilty of the same offence, but he should be despised for not having the moral courage to have come out long ago and proclaimed the views he now sets forth. We can only reconcile his conduct with his dotage; we are bound to presume that his proper position is beside the venerable Prof. Hare, who in his old age fell a victim to the miserable humbug, Spiritualism.

But in Dr. Jacob Bigelow, of Boston, we now find a champion of Sir John Forbes. He, too, writes a little book, (a very small one,) in which he endorses all that his oracle has said, and prefixes a fable, "The Paradise of Doctors." Shade of Æsop! come to the assistance of the modern fable writer. In the name of science and common sense, give him a theme, and then invigorate his pen.

To read these little books of Sir John Forbes and Dr. Bigelow, one would suppose that they were the only "rational" medical men in the civilized world. They tell us of "Artificial" doctors, "Expectant" doctors, "Homœopathic" doctors, "Exclusive" doctors, "Hydropathic" doctors, and, lastly, "Rational" doctors. All those who read their books must belong to one or another of the five first named; while *they* are, *par excellance*, the "rational" doctors. We look around us and find that the course pursued by respectable medical men is about as "rational" as the frailties of the human mind will admit—that no

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conscientious and well-informed man is solely the one or the other—that every such man sifts from each all that is good, and eschews all that he deems evil, and yet all are irrational practitioners, and the bright day of "rational medicine" is just dawning in Boston and London. Sir John Forbes and Dr. Bigelow had better, old as they are, study human nature a little farther; they will surely find that, although the tendency of man is to run into extremes, there is a conservative balance ever existing, and the march of science and art is onward—the march of medicine is onward. Thus far they have lived long lives to little purpose, outside the little circle of self; and now they are establishing the unenviable reputation, at least with their professional brethren, of having long practiced an art, the utility of which they only ignore when they are looking into their graves—or, when they no longer need the bread and meat and raiment which the practice brings.

THE NORTH AMERICAN MEDICAL REPORTER. Edited by W. ELMER, M.D.

This is the title of a new journal published by W. A. Townsend & Co., New York, the publishers of Braithwaite's Retrospect. It is to be regretted that a journal which is evidently designed to be issued in a kind of connection with such a work as Braithwaite's should not take a more dignified position than the one before us. It is designed to present an index of the interesting articles which appear in the various periodicals to which it has access; so far it is good; but in addition, even the first number, which it would be policy to keep free from everything objectionable, we regret to say, contains many things which the regular profession cannot but condemn. We should not have mentioned this publication, had it appeared under the guise of an eclectic or homœopathic journal; but the position which it aspires to assume, the circulation which it hopes to obtain among the regular profession, and especially its apparent connection with the reprint of Braithwaite's Retrospect, make it necessary for us to speak of its claims on the profession. A journal which contains a favorable notice of "The American Family Physician or Domestic Guide to Health," by John King, M.D., Professor of Obstetrics and Diseases of Women and Children in the *Eclectic* College of Medicine, Cincinnati; and the "Pronouncing Medical Lexicon," by C. H. Cleaveland, M.D., Professor in the same institution, cannot demand our support or sanction. We say nothing of an editorial article which reads as though it had been copied from the advertising sheet of a daily paper, announcing a new hair invigorator, the formula "to be found in a subsequent part of this number, which constitutes one of the best if not the only *rational* preparation for restoring the hair to its original or healthful condition." These are undignified and unprofessional, and we cannot commend a publication which, like this, either panders to the interests of an eclectic, or the discoverer of a hair wash, or puts himself on a level with them, and endorses their opinions.—*Buffalo Med. Journ.*

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[We adopt the following from our contemporary at Richmond, in lieu of the notice we had prepared, because better than anything we could write, and too good to be lost.—Ed. Gaz.]

Concentrated Organic Medicines. A Practical Exposition of their Therapeutic Properties and Clinical Employments, &c., &c. By Grover Coe, M.D. Published by B. Keith & Co. New York. 1858.

Imagine for a moment the feeling of hopeless depression with which the student, fresh from the tedious pages of "Pareira" or "the Dispensatory," will undertake the perusal of this work. After all his patient labors, he finds himself face to face with an entirely new set of remedies, "*the combined proximate medicinal extracts;*" and his flesh quails at the formidable catalogue before him. Nearly *one* hundred of these "organic medicines," all rejoicing in sonorous names, present themselves to his astonished view for the first time, and his brain is bewildered with the polysyllabic music of the hamamelin, caulophyllin, the cypripedin, or the menispermin, running up and down the alphabetic gamut, from amphelopsin to xanthoxylin.

Soon, however, will this sadness be turned to joy, as the investigation proceeds; and he who began with a sinking heart, will presently cry out, Eureka —no more difficulty now—no more misgivings about the method of treatment. Dr. Grover Coe has written a book, and B. Keith & Co. have published it.

And here let us perform that always pleasant duty, of bestowing praise when it is justly merited. On the authority of Dr. Grover Coe, we can state that, but for the liberality of the enterprising publishers, B. Keith & Co., this valuable production might never have seen the light! Nay, we can go farther. "To this enterprising firm we owe all of these inestimable organic medicines. They have invented them in their laboratory," 590 Houston Street. Mr. B. Keith has for six years been "testing in clinical practice these preparations, which his scientific skill had succeeded in bringing to a state as near perfection as possible;" and indeed "to this gentleman and his colaborers in the field of organic chemistry belong the credit (for which they now want the cash) of being the first to discover, describe, and introduce to the profession all but two of the concentrated preparations enumerated in this work"—p. 110.

Not only has Mr. B. Keith prepared and made ready these invincible specifics, thoroughly tested in practice by himself and his author, Dr. Grover Coe, but the latter individual has, in this book of four hundred pages, brought together a mass of evidence in favor of the organic extracts when used in the treatment of incurable diseases, which we may safely say is unparalleled.*

After so much to praise, we regret to find a serious and glaring cause of complaint. Our duty as critics compel us, however, to speak. There are two portraits in this book—one of "Yours respectfully, B. Keith;" the other, of "Very respectfully yours, &c., Grover Coe." Of the first we must say, that after the philanthropic labors in the laboratory, 590 Houston Street, for the good of humanity—after in *six years* doing more than all the rest of the world in twenty centuries, we *must* say that it is a disgrace to see this great and good man libeled in this atrocious manner. Why, reader, if you were to meet a passenger in an omnibus with such a face as this *falsely* called "Yours respectfully, B. Keith," you would instantly put your hand on your pocket book. We don't

*As an evidence of the wonderful nerve of the author, see the following "extract" from his preface: "Some few typographical errors have undoubtedly crept in, consequent upon family afflictions and professional cares, *by which our attention has been much diverted.*"

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care who did it. A man in New York named Orr, says *he did it*, but we never, never will believe that this is anything like the great originator of the concentrated organic medicines.

Let us turn for a moment to "Very respectfully, &c., Grover Coe." It can't be like that gentleman. Where is the laughing face, "diverted with typographical errors and family afflictions." It is impossible to believe that one who has found out (in the laboratory of B. Keith & Co.) a certain cure for all diseases ever sported *such a beard*. Cross Tom. Hyer upon the Benicia boy, and the attempt would be a failure. But we can't speak of these *shameful caricatures* as they deserve.

In this book, then, reader, you will find *the remedy* for every disease! All that you have to do is to write to B. Keith & Co. (e), and you are ready for action. "The indomitable energy and skill of this firm" have surmounted all obstacles. Take the gelsemin, for instance—"fevers of almost every type may be controlled in from *six* to *eighteen* hours." But B. Keith & Co. (e) have a great many other extracts to sell you; and the more you mix them the better they are. So put with gelsemin, podephyllin and euphorbin, and rheumatism stands no chance. Add leptandin, pneumonia vanishes; but for a scarlet fever, don't forget asclepin. Female disorders, however, require to be added caulophyllin, viburin, corhein and cerasin.

All that we have said, however, fades into insignificance, when we approach the invincible *veratrin*. Here our author, who truly says in his preface that he had "not sought to charm the sense by elegance of diction," surpasses himself. It cures every ill to which flesh is heir, and even is successfully employed in the removal of *pin worms from the rectum*.*

"Its positive, yet kindly control of the heart and arterial system—by means of which we may say to the turbulent currents of the blood, 'peace, be still'—constitutes it a *sine qua non* in the treatment of febrile diseases." And lastly—oh! ignorant pretenders and deluded followers of the healing art—throw away your calomel vials, burn down the drug stores, and send an order to B. Keith & Co. (e) for the true elixer of life. Give it to your patient, "and you can truly pronounce him *well. when he is discharged*—no ptyalism; no loosening of the teeth; no sloughing of the soft parts; no lesions of the mucous membranes or other tissues; no morbid discharges from the eyes or ears, as is frequently the case in scarlatina and measles; no troublesome eczema to harass the weary sufferer; no barometric pains to announce approaching meteoric changes; no fœtid ulcers discharging their filthy ooze from fountains of corrupt and stagnated secretions within; but a system renovated and invigorated—the vital currents *leaping* in LIVING JOY through their unobstructed channels—the unfettered nerves *harmoniously* obedient to the mandates of the organic intelligence, and the *rose of health* blooming in grateful acknowledgment over the INTEGRITY of the SOUL'S CITADEL."†—*Va. Med. Journ.*

* "FIVE to TEN drops in THREE or FOUR ounces of water" have been used, but Dr. Grover Coe says that *he* would prefer it mixed with a "*thin mucilage of slippery elm* or a *solution of molasses and water*;" and we agree with him most decidedly.

† As another evidence of the power of these organics, see p. 246, where, by a combination of lobelia and podophyllin, Dr. Coe removed from the stomach of a child eight months old, *one and a half pint of solid casein*. When we recollect that for this proportion of casein, the stomach must have also taken in 1¼ pint of butter, 1½ pint of sugar of milk, and about *thirty pints of water*, besides various salts, can we hesitate to confess the value of the remedy? Our author, in this case, considered the "so-called congestion of brain to be nothing but acrid ingesta in the alimentary canal;" and we say he was *right*.

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Synopsis of Contributions to the Physiology of Digestion.

By Prof. W. Busch, of Bonn.

Collaborated by Louis Bauer, M.D., M.R.C.S., Eng.; Surg. to the L. I. College Hospital, Brooklyn, &c.

With the aid of experiment, the physiology of digestion has been elaborated beyond anticipation; yet doubts are still entertained whether experiments upon the higher mammalia permit conclusive inferences to be drawn upon the digestive functions in man. For this reason the contributions of the talented professor of surgery at the University of Bonn, as contained in the recent number of Virchow's Archives of Pathological Anatomy and Physiology, (Vol. xiv., No. 2,) will be received with great satisfaction, having had the rare opportunity of testing upon human digestion the various views on that process hitherto entertained.

A woman, thirty-one years of age, was introduced to the professor, who, from injuries received, presented fistulous openings, which completely separated the superior portion of the intestinal track (stomach, duodenum and a short fragment of the jejunum) from the lower one.

As not the least communication existed between the two portions, and as the alimentary contents of the stomach and duodenum, conjointly with the gastric, enteric and pancreati csuccus and bile, were discharged separately, from the contents and secretions of the lower portion, a series of experiments could thus be instituted that were well calculated to throw light upon some obscure points in the physiology of digestion, whilst it affirms others, thus converting hypothesis into established facts.

The woman in question was in her sixth month with her fourth child, when she was assailed by a bull. One horn lacerated her abdominal parieties, midway between the pubic symphysis and umbilicus, whilst the other caused but a trifling ecchymosis. The wound (in the parieties) was five inches in length, and transversely to the mesian line of the body. The prolapsed intestines seemed not to be injured. They were replaced, and the wound closed by sutures.

During the subsequent three days the patient passed one alvine evacuation, and felt comparatively comfortable; but then violent pains commenced, the wound reopened, stools became obstructed, and, with increased pain and suffering, food and fæces forced their way through the opening. A week after, the patient was prematurely confined with a still-born child.

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Although the pains very soon after entirely subsided, and although a most ravenous appetite set in, yet the patient became so rapidly reduced in flesh and strength, that her relatives decided upon her removal to Bonn. It appears from collateral statement, that the intestinal track had not been injured at first, but had subsequently become inflamed and sloughed.

When Professor Busch first saw the patient, she had the appearance of a woman double her age, presenting a rare degree of emaciation, without the slightest trace of fat. The epiphyses of the bones were everywhere prominent, and the muscles attached flabby, relaxed, and seemingly atrophied. It hardly needs mentioning, that the patient was equally debilitated and prostrate; that she had scarcely strength enough to move her lips, and that her expression of countenance was that of profound indifference and indolence. Pulse rarely exceeded 50, and was of small, empty, thready calibre; respiration correspondingly rare (10 to 12 in a minute,) and superficial, with a weak, hoarse and toneless voice.

On examining the abdominal parieties, which were drawn towards the spine and excavated, an oval distension presented itself, about midway between the pubic symphysis and umbilicus, similar to abdominal hernia. On the lower half of said projection there was a cutaneous defect of about one and a half inches, with two openings, a left and superior and a right and inferior one. The finger, or a middle-sized elastic tube, could easily enter the former, from which a yellowish liquid issued, occasionally mixed with fragments of food. The latter was surrounded by a prolapsed ring of mucous membrane, which also admitted the finger, but only for a short distance, where a valve or stricture stayed its progress. Dilatation soon overcame the difficulty, so that no further interruption existed between that opening and the anus.

From this pathological condition, it follows that there was a perfect artificial anus of the intestine, which had no communication whatsoever with the lower portion of the track.

The seat of the superior fistula close to the umbilicus, the density of Kerkring's connivent valves, and the liquid state of chyme with unaltered fragments of food, rendered it highly probable that it connected not only with the smaller intestine, but that its connection could not be far from the diverticulo Vateri. This supposition was still more strengthened by the fact, that in the morning, and prior to breakfast, the bile discharged was green as grass, whilst that color was

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not met with in a lower portion of the bowels; and still more by the rapid waste of the patient, despite of rapacity for, and abundance of aliments consumed.

Unfortunately, the patient's weight was not ascertained when admitted to the University Hospital, but her emaciation may be imagined by comparison, for after considerable improvement of nutrition, she weighed, eight weeks after, no more than 68 lbs. 2 oz.; whereas, thirteen weeks after, she weighed 75 lbs.; and twenty-one weeks after, 85 lbs.

An operation, purposing to connect the two fragments of the intestinal tube, was, of course, out of the question at that juncture, and the whole attention was directed upon leading the contents of the upper portion into the lower by artificial means. But, failing repeatedly in that attempt with various appliances, another course of feeding the patient was determined on and followed up successfully. At first protein substances were injected into the lower opening, alternately with amylaceous, and subsequently eggs and meats were stuffed in by the finger. The result was most surprising, and admitted no comparison with the previously adopted feeding through the mouth. Although there was not commensurate increase of the volume of the patient, yet the muscles manifested more tone, the features lost their death-like expression, the eyes became bright, the voice returned, and the patient could sit up in the erect posture.

After the patient had acquired a certain degree of strength and weight, the food was taken through the mouth, which almost sufficed to maintain nutrition, needing but rare additional support through the lower portion of the intestine.

Professor Busch had thus ample time and scope for his digestive experiments and observation, which the following will illustrate:

1. *Consequences of Wear and Tear with Deficient Assimilation.*

When the patient entered the hospital, the immediate effects of the injuries received had passed off, and her morbid appearances were solely attributable to the immense loss of digestive fluids, amounting to several pounds a day, without adequate supply. Bidder and Schmidt observed the same effects in dogs, with artificial fistulæ of the small intestine. The disappearance of fat; the sequent loss of muscular strength; somnolence and decrease of temperature, are well-known facts. The latter is, however, but subjective, and not confirmed by the thermometer. With the progressive improvement of the patient,

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she became more comfortable and wakeful. When her prostration was greatest, her time was actually divided between eating and sleeping; but at a later period she required no more sleep than a healthy individual. Hoarseness and voicelessness had no other cause than inanition; for when, at a later period, the closure of the fistula was attempted, and the patient voluntarily abstained from taking any food for several days, in order not to disturb the healing process, both returned to a certain extent for the time being. Vox cholerica may be ascribed to an analogous cause.

Highly interesting were the statements of the patient as to sensation of hunger. She devoured incredible quantities of food, and for a length of time; while still eating, the food first taken would make its appearance in the superior fistula, and, on being questioned, she would state that, although feeling better, her strong desire for food was not satiated. In fact, though her stomach might be filled, she nevertheless felt an irresistible desire for aliments, being of course materially increased by abstinence.

The case was decidedly most favorable as to the physiological character of hunger, the two factors of which were clearly discernible, viz., that general sensation, originating with the extreme want of supply, and that appertaining to the emptiness of the first passages themselves. The latter could be temporarily satisfied; the former did not subside before the supply had somewhat restored the balance with the continuous waste and drainage. Another proof of the dualism of hunger was rendered by the observation that the stuffing of the lower section of the intestinal tube reduced the hungry feeling more effectually and permanently than the continuous reception of food by the stomach.

2. *Peristaltic Motion.*

The entire absence of adipose tissue, and the extreme attenuation of the skin in general, would have enabled the observer to watch and to follow the peristaltic movements of the bowels. But this case was still more favorable for such observations, by the co-existence of abdominal hernia and the direct exposure of a portion of the entrails.

Under ordinary circumstances the peristaltic motions were uniform in all parts of the bowels; but when, as it occasionally happened, a prolapsed invagination took place through the superior fistula, the invaginated portion would move vehemently until retracted, and sometimes tonic spasms would befall it so as to be hard and erect. This,

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however, only happened when the prolapse measured more than two inches.

According to Ludwig's and Schwarzenberg's observations, the peristaltic motions are periodical, alternating with perfect rest of the intestines, and this was found to be correct in the case of Prof. Busch. The latter saw, oftentimes, during 10–15 minutes, not the slightest alteration in the calibre of the bowels. Nor could he find that the difference of temperature, or a moderate mechanical stimulus (for instance, the introduction of a finger) made any difference. Nay, even food did not always disturb the quietude. The same would, however, suffice to increase or rather accelerate the peristaltic actions. Moreover, the latter could be observed early in the morning, before the patient had taken food, showing a certain independence of external influences. During night rest seemed to supervene, when also the discharge ceased from the superior section, commencing again at 4 or 5 o'clock, A.M. Light food, taken late, would entirely escape before night; heavier victuals would eliminate in part, and the rest in the morning. Sleep or waking made no difference at any time. The respective contents of the intestines are not propelled in a continuous column, but with interruption. Substantial food would be pressed out like part of a soft sausage; liquids would issue briskly forth, and then a pause would ensue, and so on. If not attributable to the adhesion of the bowels to the abdominal parieties, gotten up for the purpose of freeing itself, and consequently connected with the morbid condition of the patient, there is also a longitudinal locomotion of the intestinal track. For the peristaltic movement is not exclusively circular, but also longitudinal, and has been clearly observed so in the present instance. A finger being introduced in the intestinal tube, the latter would close around it, and cause a sensation as if the finger was drawn deeper in. The intestine would also glide over the finger, and then contract to expel the foreign body. In the expulsion of food and digestive liquids the same could be observed in the periodical protrusion and retraction of the mucous membrane through the superior fistulous opening.

The experiments of Ludwig and Schwarzenberg upon dogs, as to the direction of the peristaltic motion, tending to show that it is invariably towards the anus, could not be confirmed in Prof. Busch's case, the lower section of the intestinal tube being repeatedly observed to move anti-peristaltically, and disturb thereby the experiments in progress. Thus not only food, hours and days after being taken, was returned from the inferior opening, but also a gauze bag filled with

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articles of food, and deeply introduced. Soon after the dilatation of the lower fistula, mucus was ordinarily thrown out by regurgitation.

The various experiments instituted, with a view to ascertain the exact amount of the propelling powers of the peristaltic action, had to contend with considerable difficulties, the want of a proper apparatus, and its fastening within, or to the intestine, being the chief ones.

A glass tube was bent in appropriate angles and intimately connected with two small funnels, one to surround hermetically the superior fistula, and the other to be used as a recipient of water or any other fluid. This apparatus being applied and filled with cold water, produced at first contraction and firm closure of the opening; but after a while it relaxed, when the water descended, and disappeared within the fistula. The repeated contraction, and relaxations of the entrail, thus raised and lowered the column of water in the glass tube. Gradually more water was added, so as to form a column 24″ in height. The pressure of the intestine upon its contents was amply sufficient to counterbalance it, (that is, a vertical column of water 24″ high,) nay, raising it even beyond its original level, and conjointly forcing out some alimentary contents.

Much beyond a column of water of the stated height the intestine could not balance, and though it acted with great vehemence, yet it could not prevent the water escaping into the artificial anus.

This experiment, however inefficient, tends nevertheless to prove:

1st. That during the peristaltic action the walls of the intestines come in so close contact as to prevent the entrance of water.

2d. That the strength of the peristaltic action is amply proportioned to the pressure of a column of water 24 inches in height.

Again, a strong glass tube closed on one hand, and filled with 12 ounces of hydrargyrum vivum, was inserted in an acute angle to the horizon, and likewise propelled with great ease. Still other experiments were contemplated to measure the peristaltic force more accurately, but the patient objecting, they had to be abandoned.

3. *Succus Entericus.*

Its quantity is yet in dispute. Frerichs separated a portion of small intestine by ligature, and after a while it was filled with alkaline liquid. Bidder and Schmidt, however, state that the enteric juice just suffices to moisten the surface. The observations of Prof. Busch confirm the latter. By introducing a two-leafed speculum into the lower opening, a

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part of the mucous membrane became thus exposed. The surface, either pale or rose-colored, presented at no time an abundance of secretion; nay, there was mostly not sufficient to moisten a stripe of litmus paper, if not left for a great while. Again, cane sugar brought into the lower opening in a gauze bag was, after 15 minutes' exposure to the action of the enteric juice, not entirely dissolved. Hence it seems that this digestive fluid under physiological conditions is secreted, but in moderate quantity, and that its averted abundance is attributable either to bile, gastric and pancreatic juices admixed, or to a morbid state. Mechanical irritation of the mucous membrane repeatedly augmented and deteriorated the enteric juice, converting it into a thick viscid substance not unlike the nasal mucus. The fluctuating consistency of enteric juice justifies the supposition that there is a difference in the proportion of fixed and liquid constituents. Bidder and Schmidt estimate the former at 1½ per cent. Busch has observed them to be as high as 7.04, and as low as 3.87, therefore an average of 5.47 solids.

Chemical reaction of enteric juice was throughout alkaline.

4. *Digestive Properties of Succus Entericus.*

On this head the views of physiologists are almost diametrically opposed to each other. Frerichs has acquainted us with the power of this fluid to convert amylum into grape sugar, but disputes its effects upon protein substances, as asserted by Bidder and Schmidt. None of them had as good a chance in deciding the pending question more conclusively than Prof. Busch, on account of having enteric juice unadulterated, for his observations.

As the first experiment may be admitted, the feeding of the patient through the lower opening, with a diversity of nutriment, (beef tea, beer, farina soups, hard-boiled eggs, and meat.) During six weeks prior to her entering the hospital the patient had had but one alvine evacuation of the size of a chestnut, consisting probably but of mucous and epithelial cells. Subsequently she had every 24 hours a copious one of ordinary consistence, though of a grayish white color, on account of the total absence of bile. Most conspicuous was their fœtid odor. Digestion seemed otherwise to be perfect, and the fæces retained no traces of nutriments taken. These facts, with the steady improvement of the patient, would seem to demonstrate the dissolving properties of enteric juice upon protein bodies.

In order to test separately the action of succus entericus upon vari-

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ous articles of food, they were introduced singly by means of permeable bags, whilst their respective weights were ascertained by the method of Bidder and Schmidt—that is, they were dried by 100° C., and their liquid parts evaporated prior to their insertion. After having remained in the bowel for some time they were carefully washed with distilled water, again reduced to a dry state by evaporation, and the difference of weight noted. This method gives as near as possible an accurate result; inevitable accidental losses of food may be supposed compensated by retaining some of the mucous or enteric juice, notwithstanding the subjects of experiment being washed.

5. *Action of Enteric Juice upon Protein Substances.*

All experiments instituted for the purpose of ascertaining the solving faculties of enteric juice upon protein, resulted in a positive reduction and disintegration of the test substance. Although the loss of weight was but trifling, yet that is accounted for in the first place by the test substance being retained at a certain distance from the fistulous opening, where but a small quantity of the secreted juice could act upon it, and moreover that itself was freed from water, and hence in a very concentrated state.

When the test substances were removed from the bowel, they had lost their firmness, form and color. The cubical pieces of egg had lost their corners and appeared like cheese; they crumbled in small fragments. Meat had become quite pale, and parted in rags and fibres. At the same time all presented evidences of advanced decomposition; a fœtid odor and the contact with muriatic acid would cause the rise of ammonia vapors. That the latter originated in the putrescence of the nitrogenic articles, could not be doubted, for empty bags, or one filled with powdered charcoal, and for some time inserted into the bowel, would present no similar phenomena. Nor can it be said that the exposure of organic bodies to moisture and warm temperature would have produced those marks, as none of the experiments extended over 7 hours, but some were limited to 1½.

1. Experiment with Albumen.—1901 grains of hard-boiled albumen in a clean gauze bag, being introduced 6½ hours, then removed, washed and dried. It weighed 189 grains. 5589 grains of the same substance was also dried in the same manner, weighed 859 grains. According to that proportion 189 grs. dry represents 1229 grs. wet, leaving a balance of 672 grs. consumed by enteric digestion. Loss, 35.035 per ct.

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2. Experiment with Albumen.—2298 grains hard-boiled albumen inserted for 5½ hours, afterward washed and dried, when it weighed 312 grs. For comparison, 4194 grs. of same egg being dried showed a remnant of 0,609 grs.; consequently 312 grs. dry are equal to 2148 grs. undried albumen, showing a loss of 105 grs. or 6.05 per ct. by digestion.

Similar differences are noticed by Bidder and Schmidt.

1st Experiment with Meat.—On the 15th of January. 1605 grs. of boiled beef, in cubic pieces, were brought into the lower fistula. After 7 hours' exposure to the enteric juice it was removed and dried, when it weighed 0,528 grs. 4895 grs. of the same meat are equal to 2297 grs. when exsiccated. In that proportion, 0,528 grs. dry are equal to 1125 grs. of undried meat, and the loss sustained by digestion is therefore 0,480 grs., or 29.090 per ct.

2nd Experiment with Meat.—3754 grs. boiled beef was subjected to the same process, and after 5 hours its weight was ascertained to be 1,479 grs. dry. In a balancing experiment, 5094 grs. of same meat dried and reduced by evaporation to 2,124 grs.; a proportion from 3547 grs. to 1479, being equal to a loss of 5.03 per ct by digestion.

6. *Action of Enteric Juice upon Starch.*

The enteric secretion acts by far more powerfully upon amylaceous substances, for the lowest per centage of loss by enteric digestion considerably exceeds the loss of protein, although variations were equally observed. In order to secure as correct a result as possible, Prof. Busch inserted the dried paste.

1st Experiment.—1286 grs. dried pap in a gauze bag, inserted for 5½ hours. When removed and perfectly dried, it weighed 0,469 grs., leaving a loss of 0,817 grs. by digestion.

2nd Experiment.—1404 grs. dried paste, after 6 hours' exposure, leave 0,863 grs.; a loss of 0,541 grs. or 38.5 per ct.

3rd Experiment.—A glass with starch water was injected, and after 48 hours an injection was made of sulphate of magnesia, producing two stools; chemico-microscopical examinations of the latter show the perfect absence of amylum bodies. Whereas iodine solves them first red, gradually changing into pale violet. In all probability the fæces contained some dextrin, though no reduction of oxyde of copper could be effected.

The solution of starch in the intestine is attained by its being con-

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verted into grape sugar, and experiments to that effect showed invariably positive results under Fehling's test.

7. *Action upon Cane Sugar.*

Enteric juice does not change cane sugar.

1st Experiment.—A bag with small pieces of cane sugar was suspended in the lower opening; 17 minutes after they were not quite dissolved. The test gives no evidence of grape sugar, but sulphuric acid chemically verifies cane sugar.

2nd Experiment.—Cane sugar was suspended for some hours in the bowel; the bag when removed contained no more pieces of sugar. Test, no grape, but cane sugar.

3d Experiment.—The bowels were cleared by a solution of Epsom salts. In proper time a solution of ʒii. of sugar is injected, and ʒiss. is added in 10 hours. Shortly before the latter injection, patient had a serous stool, and soon after a second; chemical inspection of both, slightly sour, no grape, but so much cane sugar was found that after the liquid had been reduced by evaporation, a drop running down the wall of the vessel would have crystals along its course. The quantitative analysis yielded more than ʒi. of cane sugar.

4th Experiment.—A very weak solution of sugar ʒii. to 600 cm. water was injected at 4 different times. Before, the stool was carefully examined and no sugar detected. After the second injection, a stool, in which was found, by careful proceeding, 5 grs. of cane sugar, but no grape sugar.

Prof. Busch is inclined to believe that the previous administration of sulphate of magnesia may have had some prejudicial influence upon the absorbents, yet his experiments clearly demonstrate that cane sugar is not converted into grape sugar by means of enteric juice. It should also be mentioned, that the chemico-microscopical analysis of the urine gave no evidence of either kind of sugar.

8. *Action of Enteric Juice upon Fat.*

There being no bile or pancreatic juice in the lower section of the intestinal track, it was a matter of great interest to ascertain what changes, if any, fat would undergo by the mere contact with enteric juice. For this special purpose Prof. Busch instituted the following experiment:

During 10 days the patient received small quantities of melted butter, in all ʒiii. Unfortunately the anti-peristaltic motion ejected, at different times, small, whitish-gray and sausage-formed substance, that

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proved to be fat, mechanically mixed with mucus and epithelium, *without forming* an intimate emulsion. The quantity thus eliminated from the fistulous opening could not be fixed.

On the 10th day, the patient had the first spontaneous discharge from the rectum, being whitish, and of a highly offensive odor. When cold it seemed to be enveloped with a hard fatty substance like tallow. The rest presented itself under the microscope as consisting of amorphous and crystallized fat, freely mixed with epithelium; the entire mass reacted sour, and the smell manifested rancid acid. By repeatedly shaking the fæces with sulphuric ether and subsequent evaporation, about ʒss. of fat could be collected.

In another experiment ʒiv. of oleum jecoris Aselli were injected at intermissions. A good deal was lost by anti-peristaltic motion. The small evacuation that ensued 14 days after, consisted of large fat drops with mucus and epithelium. About the fæces there was more than an ounce of liquid oil.

Observations upon the Superior Portion of the Alimentary Track.

It will be remembered that the left fistulous opening terminated the superior section of the intestinal track at about the beginning of the jejunum. Before breakfast, synchronistic with the peristaltic motion, a discharge of digestive fluids was observed that was rendered frothy by the atmospheric air in the intestine.

The statements of Beaumont and other observers, indicate, that food requires some considerable time before it leaves the stomach. Prof. Busch says, however, meat, eggs and vegetables appear at the opening from 15 to 30 minutes after being taken. From a large number of observations on this point, he relates, that

Boiled Eggs were discharged in		.....20, 26, 35	minutes.
" Cabbage	"	..... .15 to 19	"
" Meat	"	.....22 to 30	"
" Carrots	"	12	"
" Potatoes	"	15	"

A sumptuous meal required from 3 to 4 hours for its entire removal; but traces could be detected even beyond that time, and among nourishments subsequently consumed.

With evening meals it was different; but a part was discharged, and the rest next morning.

The chemical reaction of digestive fluids in the morning was always neutral; the enteric juice, however, alkaline. When mixed with food,

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the reaction differed so much as not to elicit any stationary rule. Although solids appeared to the eye unaltered, yet a mere touch indicated their disintegration and softening. As stated by others, the microscope revealed the muscular fibres being split lengthways and broken across; and in a greater measure, when the meat had previously been hashed so as to expose more surface.

Mixed food was always discharged with a large quantity of digestive fluids, so as to swim in it; uniform aliments and some vegetables, cabbage, turnips, carrots, and potatoes, diminished the latter considerably. Amylaceous substances were but in part converted into grape sugar; protein ones gave ordinarily no evidence of albumen, from which, however, two slight exceptions were noticed.

The digestive fluids were so intimately mixed as to render examination almost useless. But one point was decided, namely, the complete absence of saliva by the negative result upon rhodanpotassium, caused either by previous resorption or chemical appropriation. The considerable quantity of digestive fluids discharged in the morning justified the supposition, that the gastric juice supplied a large proportion, which did, however, not conform with the average amount of ashes by dry distillation, namely, 2.048 per cent., whilst gastric juice is said to furnish 3 per cent. solids.

The number of heterologous substances entering upon the composition of ordinary chyme would render any examination doubtful in result, hence the experiments had to be directed upon simple material.

1. *Cane Sugar.*

The action of gastric juice upon cane sugar is yet a question of dispute. Bouchardat contends that sugar is first to be converted into grape sugar before it is capable of being absorbed; this conversion he ascribes to the effects of gastric juice, whereas Frerichs believes that the simple solution of cane sugar is directly absorbed by the stomach.

In order to render the experiments conclusive, the patient was permitted to take no other food, on the previous day, than meat and eggs. The digestive fluids, despite the presence of bile, presented next morning *no evidence of grape sugar.* After this negative fact had been ascertained, 2 ounces of cane sugar were dissolved in 28 ounces of water, and gradually taken by the patient. Under the same precautions ʒiii. of cane sugar dissolved in a large quantity of water were at another time administered to the patient. In both instances but grape sugar was discharged from the fistulous opening, and no trace

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of cane sugar; proving conclusively the entire conversion of the latter into grape sugar.

2. *Fluid Albumen.*

With a view of testing the coagulability of albumen by gastric juice being still asserted by some physiologists, the patient received the albuminous portion of four eggs, diluted in water. During the following four hours a moderate quantity of an opaque sticky and alkaline fluid was discharged and collected, in which no fragment of coagulated albumen could be noticed. Part of that fluid, diluted with distilled water, was subjected to the following tests:

(*a.*) *Boiling* produces coagulation.

(*b.*) *Alcohol* precipitates numerous flakes.

(*c.*) *Nitric acid* in minimo: coagulation; being boiled, perfect solution; refrigerated, precipitates again; acid added and boiled, dissolves and remains so.

(*d.*) *Acetic acid* in minimo: no effect; boiled, coagulates; acid added, dissolves the precipitate: liquid cold, opalesces; becomes clear again on boiling.

The same results were attained by the same tests upon fresh albumen.

From the preceding it follows that albumen experiences no change by the stomach.

How much of it is absorbed by this organ could not be ascertained with any degree of certainty, on account of its being intimately mixed with mucus, bile, &c. However, some experiments were made to that effect.

In one instance the patient, having received on the evening previous *but* vegetable food, took 38 drachms raw albumen. In order to control the experiment, 349 grains of raw albumen were dried, the water free remnant amounting to 2,708 grains. The discharged fluid being collected, acidulated and boiled; the precipitate washed with water, alcohol, and ether, in order to free it as much as possible of choleviridine, bile, fat, and other foreign substance, finally dried, leaves 6,137 grains solids. In proportion with the former 3xxii. had been absorbed, and the rest passed into the small intestine.

3. *Gummi.*

One morning the patient took 3i. gum arabic with water. Unfortunately its entire elimination could not be waited for, because the patient was so much tortured by hunger as to demand satiation after

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two hours. During this time 142 cm. of a sticky, green and neutral substance had run out, in which there was *no sugar*. 15 cm. of it were diluted with water, by which it became almost transparent. With alcohol it forms a considerable white and thick precipitate. The latter being filtered and warmed with water, dissolves again, leaving but a few particles (mucus.) The quantity of water being increased, all filtered, and in fine evaporated, the solids weigh 2,126 grains, according to which 142 cm. contain 20,126 grains of gum. It follows that within the short period of two hours about two-thirds of gum consumed had again been discharged.

In another experiment patient had taken along with soup in the morning and noon a considerable quantity of gum arabic. The same process was gone through as in the former experiment, and its result was materially confirmative.

4. *Gelatina.*

Before breakfast ℥v. of gelatina, with an addition of wine to render it palatable. Within 3½ hours a sticky neutral fluid issued from the aperture. It was carefully examined, and found that two-thirds had been absorbed.

5. *Milk.*

After taking milk a sour liquid was collected, in which small crumbs, and not large pieces of casein, as seen in children, were swimming. Being filtered, acetic acid caused some coagulation, soluble on adding acid. In that solution Cyanoretum ferro-potassii effected opalescence, nitric, muriatic and sulphuric acids, bi-chloride of mercury, alum and alcohol produce precipitation, which precipitate would dissolve again by adding more test substance.

Examining upon sugar—positive result.

Evidently had not all casein coagulated, and in part remained solved in the fluid.

6. *Fat.*

In the morning cod-liver oil; discharge of a large quantity of fluid ensued, disproportionate with the amount of oil taken.

1st Experiment.—Ol. jecoris Aselli ℥xiv., within three hours almost ℥x. of dark gray fluid escaped.

2d Experiment.—Ol. jecoris Aselli ℥xv., in same time ℥xii. ℥vi. fluid run out.

Reaction different, mostly sour, yet occasionally alkaline; in the latter case the fat was so finely diffused as not to be noticed by the naked eye. Under the microscope, however, it appears as infinite small fat molcules. The liquid, when sour, represented as near as

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possible a perfect emulsion, yet some oil drops would swim on its surface. If the primarily alkaline liquid, by exposure to air and temperature, had subsequently turned sour, a part of the fat would separate and swim on the surface, as before mentioned.

7. *Digestibility of Different Aliments.*

To determine the digestibility of food is of so great and practical interest, that various means have been devised and employed. The case of Busch seemed to be particularly calculated of serving for such experiments.

With reference to sugar, it has already been stated that in one instance (ʒii.) the thirtieth, and in another (ʒiii.) the fifteenth part had entered the small intestines, whilst the rest had been appropriated on its way towards the fistulous aperture. As to fluid albumen, the proportions absorbed to those appearing in the jejunum are 5, 6 : 3, 2, and to gelatine about 2 : 1.

The plan adopted by Prof. Busch, of ascertaining as near as possible the relative digestibility of consumptibles was:

(*a.*) That in the morning a certain quantity of a certain aliment was given to the patient.

(*b.*) That the solids of that aliment were exactly made out by drying.

(*c.*) That the fluid discharged thereupon was collected until the fragments of that aliment disappeared, then weighed, filtered, and reduced to dry state by evaporation.

(*d.*) That its relative proportions were ascertained arithmetically.

As a matter of course, those calculations are not exact, because it is impossible to fix the amount of digestive fluid partaking in the formation of chyme, though it was duly taken in consideration that certain alimentary articles employed a larger proportion of digestive fluids than others.

1st Experiment.—Patient takes thirty-nine drams of soft-boiled eggs; 3,975 grs. contain 985 grs. solids, equal to 24.78 per cent.; the patient has consequently received 585 grs. of solids. During the experiment no drinks permitted. After four hours the evidences of albumen disappeared; the entire liquid collected within this time amounts to ʒxiii., 150 grs.; part of the fluid well stirred and dried, leave but 6.86 per cent.; another well filtered and dried, leave but 4.8 per cent.

2d Experiment.—ʒiv., ʒvss. of hashed roast veal eaten by the patient; 6,415 grs. when dried leave 2,466 grs. or 38.4 per cent. solids, equal to ʒj., ʒiv., grs. 40 of solids in the veal consumed. After three hours and forty minutes, ʒviij., ʒj. of fluid have been collected, when

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no further traces of meat could be noticed. Part of the liquid being filtered and dried, it shows 5.4 per cent. solids, the non-filtered leaves 7.78 per cent.

3d Experiment.—℥xvii., ℥vi. milk are drank; 26,105 grs. dried give 8.19 per cent.; in all there are 2,907 solids. In four and a half hours ℥xxii., ℥ii. of a sour fluid have been collected, which being dried the filtered furnished 3.4 per cent., the non-filtered 4.08 per cent.

4th Experiment.—℥xxx., ℥vj. cabbage, cooked with fat, eaten; 15,596 grs. of it leave 1,586 grs. or 10.2 per cent., equal to ℥iij., ℥j. solids. The first pieces of cabbage discharged were almost unaltered, and but comparatively little fluid could be collected during the subsequent four hours. The latter, treated with distilled water, and well filtered, furnished 2.64 per cent. solids, the non-filtered 6.6 per cent.

5th Experiment.—℔ii., ℥ix., ℥iii. boiled carrots, eaten; 17,646 grs. contain 2,818 grs. or 1,597 solids. After four and a half hours, ℔iij., ℥ij., ℥vi. of a consistent pap is discharged; 17,985 grs. being filtered and dried, return 0,560 grs. or 3.1 per cent. solids in solution; the rest being subject to same process without filtration, return 6.4 per cent.

6th Experiment.—℔ij., ℥xii., ℥ij. potato pap, prepared with broth and some fat. In 12,986 grs. of this food, 2,926 grs. or 22.5 per cent. are solids. After four and a half hours, but mere traces of potato can be observed. During that time ℔ij., ℥vi. of a thin saccharine pap has been collected; 24,029 grs. filtered and washed. In a soluble state 1,548 grs. or 6.4 per cent. of solids are found; 21,465 grs. are dried without filtration, and 10.6 per cent. are found.

The result of these and other experiments elicit:

	Proportionate weight between Aliment taken and Chyme discharged.	Proportionate weight of Solids taken, to the Solids in Chyme.	Proportionate weight of solved, to insolved Solids in Chyme.
Fat.....	1·6,0	.....	.....
Gelatine.....	1·3,675	1·0,94	.....
Boiled Eggs.....	1·2,73	1·0,76	1·2,3
Meat.....	1·1,73	1·0,35	1·2,27
Milk.....	1·1,25	1·0,62	1·4,3
Carrots.....	1·1,2	1·0,49	1·0,94
Cabbage.....	1·0,91	1·0,58	1·0,66
Potato.....	1·0,7	1·0,53	1.1,5

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The first column of the preceding table demonstrates clearly the quantitative differences of digestive fluid required by different alimentary material. Oleons and protein substances employ by far a larger quantity than vegetables.

The chyme being made poorer in solids than the aliments taken, is consequently a higher dilution with water, the loss of which the patient had to replace by frequent drinks.

The solids introduced exceed considerably the solids discharged, despite the profuse admixture of digestive fluids; yet the comparison of the different figures in the several columns above could not be considered positive, without calculating also the quantity of digestive fluids employed, (vide gelatine.) But the conclusion seems to warrant, that meat is more digestible than eggs; carrots more than potatoes; and the latter more than cabbage.

With a view to ascertain the difference in the appropriation of alimentary material of purely animal or mixed diet, the following experiments were instituted:

Consumed in twenty-four hours, were—

Beef tea, mixed with 3 eggs,	lb 2	$24\frac{23}{32}$	loth.*
Two boiled eggs,	0	$5\frac{5}{16}$	"
Roast pork,	0	$8\frac{1}{2}$	"
Beef,	0	$17\frac{5}{16}$	"
Smoked tongue and cold roast veal,	0	$18\frac{1}{2}$	"
Water	lb 2	$2\frac{1}{2}$	"
	lb 6	$12\frac{19}{32}$	"
From the fistulous aperture discharge	5	$9\frac{1}{4}$	"
Balance,	1	$3\frac{11}{32}$	"
Urine,		$28\frac{27}{32}$	"
Rest		$6\frac{1}{2}$	"

On another occasion—

Coffee,	lb 2	1	loth.
Broth, mixed with eggs,	2	$29\frac{1}{2}$	"
Bread (rye bread),	0	$16\frac{1}{4}$	"
Rusk, (wheat bread,)	0	8	"
Meat,	0	11	"
Carrots and potatoes,	1	$5\frac{3}{4}$	"

* 1 loth of German weight = ℥iv.

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Soup (amylaceous),	℔1	2	loth.
Wine,	0	$15\frac{7}{8}$	"
Water,	1	$17\frac{1}{2}$	"
	10	$10\frac{7}{8}$	"
From the fistula discharge,	7	$3\frac{3}{4}$	"
Balance	3	$7\frac{1}{8}$	"
Urine secreted in same period,		$14\frac{5}{16}$	"
Remains,	2	$24\frac{13}{16}$	"

From the first experiment may be inferred that, after deducting the urinary secretion and the discharge from the fistulous opening from the weight of food and drinks received, no balance remained sufficient to sustain the other expenditure of the body through lungs and skin; whilst the second experiment left a sufficient balance for the purposes of the organism.

Most conspicuous were the changes in the chyme of the first experiment, when compared with the beginning and termination. The discharged chyme was warm examined every three hours. At first but a liquid run out, in which crumbs of egg, meat, &c., swam; gradually the amount of digestive fluid decreased in the same ratio as the solids increased, so that, particularly in the morning, a consistent pap eliminated from the opening, looking and smelling like fresh meat, without being even colored by biliciridrose. In the latter experiment the chyme remained fluid throughout, with an exception at noon, when it became for a short while more consistent.

8. *The Solving Power of Digestive Fluid.*

On filtering the chymes in which fragments of egg or meat were suspended, it was noticed that their solution proceeded in the open air without putrescence, and that but a small quantity remained undissolved upon the filterer. This took place, whether the digestive liquids were neutral or alkaline. All those protein substances having for a time been exposed to the exclusive action of gastric juice, it became a point of interest to learn how much of fish, egg or meat might be dissolved by the conjoint action of all digestive fluids; and for this purpose the following experiments were undertaken:

1st Experiment.—After the taking of raw albumen, the alkaline reacting liquid was collected, and 910 grs. of boiled albumen suspended in a gauze bag, part of the latter having previously been dried, and

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its solids fixed upon, 15.3 per cent. After six hours' exposure, the cubic-shaped pieces had lost their contours, and showed a tendency of dissolving in small particles and flakes. They had in weight, collectively, lost 41 grs. (This artificial digestion had been effected in low temperature, to avoid fermentation.)

2d Experiment.—The patient having previously consumed some meat, the liquid portion of discharged chyme, being neutral, was mixed with 1,648 grs. of cold roast veal, cut in square pieces, and placed for twenty hours in a cold room. At the termination of the experiment, no putrescence; the surface of the meat is very soft and imbued by biline liquid. The examination elicited a loss of 555 grs. of meat.

It is obvious that the neutral, and even alkaline mixture of digestive fluids, retain their digestive powers upon protein substances without the body, although not in the same degree; and the exterior juice being also endowed with digestive properties, it seems to be conclusive, that the gastric digestion is the prominent one, and the other merely supplementary.

9. *Quantity of Digestive Fluids.*

The patient received for 12 hours but 2¼ lbs. of black rye bread and water at pleasure. The first chyme was neutral; the latter sour. A good quantity of tolerably consistent bread chyme was discharged before the clear, digestive fluid appeared. The entire liquid collected during 24 hours amounted to 5 lb. 21⅛ loth. After deducting the weight of the bread it would leave a fluid balance of 3 lb. 5⅛ loth. Yet this calculation is considerably altered by the fact that the bread contained $42\frac{66}{100}$ loth, (21 oz.,) whilst the entire discharge contains but about 1 lb. of solids, including the uncountable solids of the digestive fluids. Dr. Busch assumes that about 4 lbs. of digestive fluids have been expended in the experiment, which was the seventeenth part of the entire weight of the body, (68 lbs.)

Prof. Busch summons up the results of his experiments as follows.

1. Hunger is constituted by two sensations; the first is represented by the nervous system in general, and derived from the impoverished condition of the tissues; the second originates with the nerves of the digestive organs, indicating their emptiness. The former is removed only by the required assimilation of nutritive elements, and not by merely filling the first passages.

2. The peristaltic motion of the intestines takes place with the same

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power within the abdominal cavity as when exposed to the atmospheric air. Its propelling power equals a column of water 24 inches high.

3. The alimentary canal has its periods of rest and action.

4. The quantity of enteric juice secreted is invariably small, and of alkaline reaction. Its percentage of solids averages 5.47.

5. Enteric juice is capable of digesting amylaceous and protein substances.

6. Enteric juice converts starch into grape sugar.

7. Enteric juice prepares protein substances for assimilation under the phenomena of putrescence.

8. Enteric juice leaves cane sugar unchanged.

9. Cane sugar, absorbed as such, is not discharged in the urine.

10. Fat, unless exposed to the action of bile or pancreatic juice, is absorbed either not at all or in insignificant quantity.

11. Food appears between 15 and 30 minutes after being taken in the superior third of the thin intestine.

12. Solution of cane sugar disappears in part before entering the small intestine; all that enters the latter is converted into grape sugar.

13. Raw albumen taken from hens' eggs is directly absorbed in the stomach and the adjoining portion of the small intestine. All that descends to the lower portion of the latter is unchanged.

14. Gum is not converted into sugar, but remains unchanged.

15. Gelatine is dissolved, and loses thereby its coagulability.

16. Casein remains partly dissolved in the digestive fluids.

17. Fat is entirely emulgated by the digestive fluids when alkaline or neutral, but partially when acid.

18. The digestive liquids of the small intestines possess digestive powers over protein substances.

19. The minimum of all digestive fluids entering the small intestine in the course of 24 hours, amounts to more than the seventeenth part of the weight of the body.

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SELECTIONS.

[From the Journal of Practical Medicine and Surgery, of Paris.]

On immediate Straightening and Cauterization under Starch Bandages in the Treatment of White Swellings.—Utility of Chloroform in discriminating between Muscular Contraction and Coxalgia.—Croup: Cutaneous Anæsthesia: Tubing of the Glottis substituted for Tracheotomy.

A communication made to the Academy of Sciences, by Dr. Bonnet of Lyons, on the treatment of white swellings by instantaneous straightening, has, in latter times, created a very lively sensation in the medical world.

In many diseases of the joints, says Dr. Bonnet, articular lesions coexist with deviations and incomplete luxations. Prudence sometimes points out the propriety of not interfering with these mal-formations, but it is often requisite to replace the limb in its proper direction. Now, when straightening is necessary, there are two modes of effecting it; immediate straightening by forcible extension, and slow and gradual straightening by machinery. Great experience in both, which he has compared, has proved to Mr. Bonnet the superiority of the former of these modes over the latter.

Dr. Bonnet already proclaimed, seven years since, its excellency in coxalgia attended with fibrous adhesions. This surgeon now shows that in all deformities without organic lesion, or coexistent with rheumatic, or scrofulous white swelling in progress of increase, or resolution, the mode of straightening to be preferred is that which requires but one operation, followed by protracted immobilization for several weeks.

The essential and general rule to be followed in such cases is, first to loosen the articulation during artificial anæsthesia, and to restore its mobility completely. This may be accomplished by an alternate series of gentle flexions and extensions, graduated and carried to the extreme limit of the natural movements. The adhesions being destroyed and mobility restored, the straightening of the deformity and the reduction of the displacement may be proceeded with. Proper tractions and pressure are then sufficient, and success is in proportion to the mobility obtained.

When the limb operated on has resumed the best possible direction, nothing further is required but to fix it in its new position with all due precaution, in order to prevent or attenuate the consequent pains. Grooves constructed with annealed iron wire, properly lined, may be employed for this purpose. But these grooves are not indispensable,

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and, in Dr. Bonnet's estimation, it is preferable to use a wadded and starched pasteboard bandage. Some days ago, Mr. Bonnet applied his apparatus, in the presence of a great number of persons, at the clinical lecture of Dr. Nélaton; and we remarked the minute care with which he arranged its various parts. The surgeon first rolled round the limb thick strips of wadding, which he fixed in their places by a few turns of a linen roller; pasteboard splints impregnated with liquid starch paste were placed over it, and were in their turn covered with starch bandages of considerable length; in order to give this apparatus immediate solidity, Mr. Bonnet applied over all annealed iron-wire splints, which he prefers to Mr. Seutin's dry pasteboard ones.

Thus constituted, the starch bandage must be left in its place for three weeks or a month. At the end of that time it is removed, the diseased parts are examined, and the surgeon, by applying either a new bandage of the same nature or some other apparatus, completes the straightening, and endeavors to obviate the return of the deformity, which long preserves a great tendency to recur.

But how brilliant soever the result of the straightening may be, when viewed with reference to form, to functional aptitude, or to the rapid improvement of the inflammatory state and the removal of pain, it does not, however, directly tend to cure the disease itself. To obtain this ultimate benefit, Mr. Bonnet practises cauterization under the starch bandage.

This cauterization can be performed with caustic potash, Vienna paste, or chloride of zinc. Mr. Bonnet usually employs potash lozenges wrapped up in wadding, so that the escharotic liquid may not extend beyond the point to be acted on.

Whatever caustic may be selected, it is important that the bandage applied after cauterization should extend far enough to procure absolute immobility and a complete protecting cover. Thus, for instance, after an operation on the knee, the bandage should extend from the extremity of the foot to the pelvis, and thus render motionless the foot and even the hip. In this manner the counter-irritants act exclusively on the skin and the cellular tissue, without the local inflammation which follows the application of caustic being communicated to the diseased synovial membranes, as would happen were the limbs abandoned to their natural movements.

Dr. Bonnet began, in the spring of 1857, cauterizations in combination with immobility and occlusion, and since that period sixty cases, referring to white swellings of the foot, knee, elbow and hip,

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have testified in favor of this method. In the fifteen months which have just expired, Dr. Bonnet has cured, or improved to a degree bordering on cure, three white swellings of the foot, as many of the knee, and one of the elbow, all attended with numerous abscesses proceeding from the joints, and in conditions which, according to habitual surgical practice, would have justified amputation.

We should add that, during the period of cicatrization of the cauterized parts, the limbs remain supported in grooves which, while they insure immobility, expose to view the regions which require to be dressed. At the same time, a treatment calculated to modify the general state of the patient is instituted, and during the convalescence light supports are used, which can be placed and removed at pleasure—an indispensable prop to limbs weakened by too long protracted inaction. Such is the method expounded by Dr. Bonnet, not only before the Academy of Sciences, but before the greater part of the learned societies of Paris. Several members of the Society of Surgery expressed a desire that Mr. Bonnet should state with precision the circumstances in which immediate straightening may be practised in coxalgia. Mr. Bonnet replied that for four months past he had attempted straightening eight times in that articular disease, and that he had succeeded seven times. He attributed this enormous proportion of success to the fact of having operated on subjects under fifteen years of age. Before the twelfth year, straightening, applied to coxalgia, presents chances of success so numerous as almost to amount to certainty, unless the deformation is of several years' standing, and presents many closed sinuses. Above the age of fifteen, the difficulties of straightening are extreme, particularly if the injury is of more than six months' date. The effects of counter-irritant cauterizations are then but uncertain, and deep and direct cauterizations may be attended with danger. Relatively to the circumstances of the disease being acute or chronic, Mr. Bonnet has always found that, far from being counter-indicated by the acute state, straightening and immobilization are the best means of treatment which can be opposed to the inflammatory action. In the chronic period, straightening in children is still applicable, when any traces of mobility remain. Complete anchylosis at any age and in every case is a formal counter-indication to straightening. To confute the objections raised on the subject of the inflammatory accidents, which might be induced in a diseased articulation by his operation, the skillful surgeon of Lyons had but to invoke his own experience. By resorting to methodical movements

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alone, by keeping up a uniform temperature around the diseased limb, by means of the thick layer of wadding with which his apparatus is provided, by rendering the limb immovable after it has been straightened, Dr. Bonnet has never had to deplore any serious accident, even when, to attain his object, he has been compelled to perform the subcutaneous section of the contracted muscles.

— We shall certainly revert to a question which promises to afford for a length of time matter for discussion at the meetings of our learned societies; but we have deemed it a duty at once to call the attention of our readers to one important result obtained by the application of Dr. Bonnet's method. We allude to the facility with which artificial anæsthesia generally enables the practitioner to discriminate between mere muscular contraction and real coxalgia.

The *Gazette des Hôpitaux* has published on this subject several interesting cases, one of which was observed in Dr. Robert's wards, at the hospital of the Hôtel Dieu in Paris.

A young woman twenty-five years of age, occupying the bed No. 3 of Saint Paul's ward, presented the last four months all the symptoms of coxalgia, viz., pain in the hip, improper attitude of the limb which was bent upon the pelvis, placed in adduction and slightly rotated inwards with consecutive deviation of the pelvis, immobility, resistance to straightening, attempts to effect which occasioned much pain, etc. Dr. Verneuil, who at present supplies the place of Dr. Robert, desirous of applying Dr. Bonnet's method in this case, had her conveyed to the operating theatre, where, previously to any operation, she inhaled chloroform. Mr. Verneuil expected that he should have to use great strength, and he had secured the co-operation of numerous assistants, when, to his surprise, the limb reduced itself, as if spontaneously, at the first efforts of the operator. It was then easy to cause the thigh to perform without the least violence the most extensive physiological movements, without experiencing any resistance whatever, and without the hand or the ear detecting the smallest amount of friction. The limb, replaced in its proper position, was maintained by means of Mr. Bonnet's apparatus.

We read on the other hand, in the *Gazette Hebdomadaire*, that, in a girl of eighteen, who had been for three years thought to be laboring under coxalgia, anæsthesia, employed for the purpose of immediate straightening, enabled Mr. Robert to ascertain the complete integrity of the coxo-femoral articulation, and to discover a muscular contraction, which was most successfully treated by walking, electricity, and general tonics.

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The same journal relates another fact, well worthy of attention. Dr. Laugier had to treat, in his wards of the Hôtel Dieu, a boy who had been suffering for three years in the right hip. The pain felt by this patient was at times so intense that for a fortnight he remained seated on the edge of the bed, with his feet resting on a chair, his thigh bent and in outward rotation.

Mr. Laugier, unable by ordinary means to relieve this child, put him under the influence of chloroform, and performed instantaneous straightening without encountering any serious difficulties; a mechanical apparatus was then applied, to render the extension permanent. The pain ceased as it were by magic, and the patient was soon able to walk with crutches.

Facts, such as these, are so much the more deserving of remark, that the muscles, as Dr. Jules Guérin has observed, play an extremely important part in coxalgia. Sometimes they are in a state of contraction, i. e., of spasm, and susceptible of immediate return to their normal length and consistency; at other times they are in a state of retraction or of organic shortening, and do not resume their physiological dimensions unless by laceration or tenotomy. This surgeon even considers muscular contraction the essential symptom, one of the earliest in coxalgia, so that it may exist without disease of the bones, as it, at times, is superadded to a morbid condition of the bones, and is then merely an accessory phenomenon. The benefit which may be derived in these various cases, from an agent that alleviates pain, enlightens diagnosis, and becomes the first element of rational therapeutics, will be readily conceived.

— Within the last six weeks more than twenty children attacked with croup have been operated on at the Saint Eugenie Hospital. The attention of the physicians of this hospital has, therefore, been much engaged in the observation of this disease, and the clinical studies, to which Dr. Bouchut in particular has devoted himself, have produced results which we deem it our duty to lay before our readers.

We would first notice the existence of a new symptom of croup, which affords an indication for tracheotomy. Since Professor Trousseau has again brought this operation into favor, the question has often been asked at what time, except that of asphyxia with suffocation, the operation should be performed on children attacked with croup. We stated, some years since, in this journal, that Dr. Trousseau was of opinion that it should not take place before the last stage of the disease had fairly set in; more recently the eminent professor has

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pronounced in favor of an early operation. Increasing asphyxia is with the major part of practitioners the determining consideration; but it is known that certain children die with their faces pale, without cyanosis or apnœa; in short, without any apparent traces of asphyxia. With regard to the latter, therefore, the practitioner has no indication to guide him.

Now there is, in Mr. Bouchut's estimation, a more certain sign of asphyxia, viz., *cutaneous anæsthesia*.

Whether asphyxia be *latent* or *apparent*, when the obstacle to hæmatosis has lasted for some days, and the disease is approaching a fatal termination, the skin gradually becomes insensible, and it may be pricked or cut without occasioning any pain, or at least any movement indicative of suffering. If croup requires tracheotomy, it is not rare to see children undergo the operation without manifesting the least sensibility. Dr. Créquy, formerly Dr. Barthez's house surgeon, has just published in his inaugural thesis the case of a little girl of six years of age operated on for croup, who, having recovered from the operation, declared she had felt no pain. Dr. Demarquay has similarly ascertained the existence of anæsthesia in a woman on whom tracheotomy was performed for an accidental fit of suffocation. Anæsthesia is not, therefore, an effect of diphtheritis, but of the interruption of hæmatosis, and, as experiments on animals have proved, the result of the presence of too large a proportion of carbonic acid in the blood. Now, what is the clinical importance of this phenomenon? As we have said above, it affords one indication more for the performance of tracheotomy, and this indication will be particularly useful in the case of *latent asphyxia*.

Mr. Bouchut has thus contributed to increase perhaps the favorable chances of this operation. But his ambition did not stop here, and he has recently communicated to the Academy of Medicine an idea which, already carried out with two children attacked with croup, would tend to nothing less than the suppression of tracheotomy as an ultimate resource henceforth useless.

After all the attempts made to arrive at the cure of croup by the introduction of the catheter into the larynx, Mr. Bouchut has drawn from that practice the principal of a new method, which he designates by the name of *tubing of the glottis*, and which consists in introducing and leaving for a time in this orifice a metallic ring.

The instruments he has used twice on living subjects are: 1. curved male catheter of different sizes, open at both ends, and intended to

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penetrate into the larynx as guides to the ring which this organ is to receive; 2. straight cylindrical silver rings, of from $\frac{1}{2}$ to $\frac{3}{4}$ of an inch long, provided at their extremities with two ridges at the distance of a quarter of an inch, and pierced with a hole for the passage of a silk thread, the function of which is to preserve a hold upon the ring from without; 3. a ring to protect the fore-finger, or an instrument destined to keep the jaws open. When provided with these instruments, Mr. Bouchut employed them first on a dead subject, and he ascertained, to his own satisfaction and that of his colleagues, that after having been introduced into the larynx, the upper edge of the ring was engaged beneath the superior vocal chord in the ventricles of the larynx; that the movements of the epiglottis and the arytænoid cartilages were not obstructed; that the inferior vocal chord placed itself between the two ridges of the canula, and consequently that it was above the lower ridge corresponding with the internal face of the cricoïd cartilage.

This being accomplished, it became necessary to apply the method on the living. An opportunity soon presented itself, but it was during the dreadful epidemic, which in the month of August sent to the Saint Eugenie Hospital fifteen cases of croup, which terminated fatally. Diphtheritis was generalized; and in addition, as Mr. Bouchut acknowledges, had the two children, on whom the *tubing* was performed, recovered, nothing positive could be concluded from the circumstance. All that can be said, and Mr. Bouchut has kindly permitted us to witness the operation, is that the tubing of the larynx is not a difficult process; that the canula remaining in the glottis for thirty-six hours was perfectly harmless; that the two children could speak distinctly, and take liquids without swallowing them the wrong way, and that there was, in every respect, a temporary improvement analogous to that which follows tracheotomy.

MEDICAL COSSACKS.

The professors of the healing art, numbering in the United States alone not less than fifty thousand, may aptly be compared to a huge army, assembled to resist the invasion of an insidious and obstinate enemy. The war is long and desperate, for the king of terrors is a foe worse than tyrant or conqueror; and hence, as we find many elements entering into the composition of on army—some for good and some for evil—the same is also the case with those who profess to defend the people from the ravages of death and disease.

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The great body of the profession are the rank and file of this gallant host, who bear the brunt of the battle. They are the regiments of the line, upon whose bravery and perseverance victory depends. These are the faithful and hard-working country doctors, the general practitioner, not known to fame perhaps, and probably not remarkable either for learning or originality, but true followers of the old fathers in medicine, under whose banners they wage the war as long as health and life lasts. All honor to the humble common soldier of medicine. Others may win the renown, but he it is who does the work and deserves the laurel crown.

Ever and anon we meet with the heavy artillery of medicine—the great guns, who make loud (and long) reports, and frequently do great execution. Their fame is heard over the whole land. The celebrated surgeon and popular lecturer belongs to this class. Occasionally we have even a Paixhan or a Lancaster, who makes a tremendous noise and much smoke, but is apt to explode unexpectedly, spreading terror and dismay among surrounding groups of friends and admirers.*

The flying artillery is also deserving of mention. This branch of the service is very showy and fashionable. They rush about with extreme celerity, fire a broadside, and off again in a twinkling. They wear out a chaise in a few months, drive a horse off his legs in less time, and produce a powerful effect upon the public at least.

We must hasten on to describe the various *irregular* troops which are clustering around the main body—the voltigeurs, the lancers, and the hussars of medicine. One regiment is armed with long silver canulas, and wear in their caps, in place of a pompon, the sponge probang. These are they who carry the "nitrate crayon" into the minute ramifications of the lungs, and route the enemy in his citadel. Others march by, bearing speculums of silver, ivory or glass—are very much admired by some of the other sex, especially old nurses, who are occasionally favored with a peep at the mysteries of the "ulcerated os."

Wandering off still further from the main column, are found the hot-water quacks, who, like the inimitable Jenny Dennison at the siege of Tillietudlum, are prepared to give the enemy a warm reception. The cold-water quacks fight on the opposite principle, and believe that disease, like an old witch, can only be cured by a ducking. The homeo-quacks should not be forgotten; for while they depend mainly upon small shot, yet, like the poisoners of old, much may be done with a globule (especially if it is made of strychnia or arsenic.)

Now we have reached the outskirts of the army, and we find ourselves among the predatory hordes which always follow the column,

* May not this sometimes happen from *over-charging?—Printer's Devil.*

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and spread rapine and murder through the surrounding country. These are the Pariahs of medicine, who watch about and pick up the despairing victims of cancers, tubercles, and other incurable diseases, who, getting no comfort from the honest and truthful, are ready to clutch at anything which promises relief. For such the artful and unscrupulous Cossack eagerly seeks, promises everything they desire, fans dexterously for a time the flame of hope, robs them of their last dollar, and deserts them, to follow up another whose purse promises a better reward, and whose credulity is not exhausted. These miscreants are like the ghouls, who fatten upon the substance of dying men, and beguile with lying words the poor sufferer who falls into their hands. They are the foul blots upon a noble profession, and yet they will never be exterminated. The drowning mariner will cry out for a sail, although the pirate crew will plunder his pockets and make him walk the plank. Poor human nature instinctively shrinks from the embrace of the last dread foe, and, when all else fails him, he will run anywhere for succor.

Let us at least draw a moral from our parallel, which may be useful and instructive. The brave soldier stands by his comrade shoulder to shoulder, strikes with him his last blow, and falls with him when the charge is sounded. He observes the strictest discipline, obeys explicitly the code of martial law, and drives with scorn and contempt from his presence the plunderers and camp followers who linger about his path. Let the true-hearted members of our army imitate this example. We too have a code of honor, which tends to promote good order in our ranks. Discarding petty jealousies and impatient longings after fame or fortune, let us stand, each one supporting the other; defending his brother, protecting his reputation, and advancing his interest. Above all, turn away with unhesitating contempt from any contact with these adventurers, who will bribe you to countenance them, but for whose sake you will assuredly sacrifice the good opinion of honest men. Such a well-ordered union in our ranks would greatly increase the dignity and efficiency of the calling, and would curtail largely the domain of the irregulars, who now thrive by our dissensions and profit by our confusion.—*Virginia Med. Journ.*

QUACKERY.

We were much pleased with an editorial which appeared in the last number of the Belmont Medical Journal, on Quackery. It is undoubtedly true that there is a vast amount of ignorance and char-

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latanism among many of those who have had the degree of Doctor of Medicine conferred on them by Medical Colleges, and it is not surprising that the public should feel quite as much disposed to place confidence in persons who claim to possess skill in the art of healing without having a diploma, as in the graduates of Medical Institutions. Success is the only test of qualification which they can apply to Medical practitioners, and only those who are successful in the long run can expect to be entrusted with the treatment of their diseases.

Were the power of granting diplomas taken from Medical Colleges, and conferred upon a Board of Examiners appointed by the State government, who, having no interest to graduate any except those who were qualified, should examine all candidates for medical degrees as rigidly as the candidates for medical appointments in the army and navy are, this evil would be obviated, and the profession would take the rank which it ought to hold, and the title of Doctor would mean something more than that its possessor had paid lecture and graduation fees at a medical school.

There are now forty-one medical colleges in our country, all anxious to have as many students as possible, and many, we fear, less desirous of sending out well-educated physicians, than of swelling the number of names on their catalogues, and pocketing their fees. The writer of the article before alluded to remarks:

"The verriest ignoramus that we have seen for many a day, was one carrying a diploma from the principal college in New York city. How he came by it God only knows, for it must have been evident that none of the professors belonging to the college could have given a satisfactory explanation, or have signed it as a guarantee of his scientific acquirements. But by such a diploma the young man was thrown upon the world in a false position—in a position that he had necessarily to act the charlatan, and disgrace the profession. Such things are, however, not confined to New York, or Philadelphia, or Baltimore. The celebrated institutions of Europe are equally culpable; all proceeding on the principle of 'you tickle me, and I'll tickle you.' Our readers, if they wish a comprehensive view of the subject, will do well to peruse an article on medical education, in the July number of the Westminster Review. Here is a specimen of evidence on the state of the medical profession, given before a parliamentary committee.

"Mr. Guthrie, in his evidence, says: 'I know too well that from various parts, certificates, diplomas, and all other papers, come very improperly sometimes, and that they are very often deceptive. . . . .

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I do not hesitate to say, that among those attending my surgical lectures, I have, at this moment, three or four who have paid me their money whom I have never seen; and when, last season, I called their names over, I found them absent. They had paid their money and walked off to the country, and had relied upon my never discovering the fact; and at the end of the season they would have come to me and asked for a certificate, and probably they would have got it. I was once (?) deceived in that way, and gave a false certificate.' The College of Surgeons, in 1834, called upon teachers to be more discriminating in giving their certificates; 'but,' says Mr. Guthrie, 'I do not believe they have given themselves any trouble about it, either students or teachers; and, in fact, it is not their interest so to do, unless the rule is general.' Mr. Green affirms that students are likely to abandon any school where regular attention on lecture is enforced. That the certificate system must generate loose notions of moral obligation in both teachers and pupils, there can, we think, be little doubt. We heard a young man ask for a certificate of having attended a course of lectures, not one of which he had been present at. The lecturer began to fill up the certificate, but before completing his signature he said to the student, 'Have I ever seen your face before?' After considerable equivocation, the student admitted that he had not attended more than one lecture. The lecturer then said that on evidence of attending one lecture, he would sign the certificate of his having attended the course. The student finally admitted that he had not attended one lecture, and that he did not even know in which quarter of the year the course was given. But he pleaded illness as an excuse for non-attention, and having paid his hospital fees, he persisted in trying to convince the physician that if he refused the certificate, he would not only be guilty of a great unkindness, but a great *injustice!* He evidently considered that in paying his fees he had actually bought the certificate, and that the lectures were given into the bargain, to be attended or refused at his option.

"In olden times diplomas were of some account. It is not so now. Every man, with brain not in excess of the barnacle, may buy one with his money or some deceptious art. And what makes the title still more discreditable is the fact, that colleges of all doctrines have spread over our country, spewing out Eclectic, Homœopathic, Hydriatic and Gyneocratic M.D's, until the whole land stinks. Seeing, then, that the cognomen is no evidence of skill in the profession, would it not be well for the true Æsculapian to drop the title and leave it in the hands of the mountebanks? For all purposes, a name

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expressive of a person's identity is sufficient; and for character, let the scriptural rule, 'By their fruits shall ye know them,' be applied. If we must have titles, let them be such that not only scientific men, but that the vulgar also, will feel assured of the merits of the possessor."—*Maine M. and S. Reporter.*

MENSTRUATION DURING PREGNANCY.

By Dr. Elsasser.

This contribution to a disputed topic is founded upon 50 cases, extracted from the journal of the Stuttgart Lying-in Hospital—cases which are said to rest upon the most certain information. The subjects were 15 primiparæ and 36 pluriparæ, who, with the exception of two women (aged 36 and 41), were between 20 and 30 years of age. Of the 51 children born, 34 were boys and 17 girls, 36 being mature and 15 immature. The menstruation during pregnancy occurred in 50 women in the following manner: Once in 8, twice in 10, three in 12, four in 5, five in 6, eight in 5, and nine in 2. In 13 cases the peculiarities of the rhythm of the discharge were inquired into, and the rhythm was found regular in 4, in 1 it occurred at the sixth week, in 3 there were pauses between the epochs, in 2 the menstruation first appeared after the second month, in 2 after the fourth, and in 1 after the fifth month. In one case the menstruation first appeared in the middle of gestation, and henceforth came on every four weeks, lasting three or four days. The child, perceived but feebly at first, was strongly felt during the last four or five weeks. Hæmorrhage occurred twice within a week before delivery, but a mature, living infant was born. Indications as to the amount of discharge were furnished in 26 cases, and in 18 of them it was less than in the non-pregnant condition. The weight of the 35 mature infants varied from 5 lbs. to 9 lbs.

Dr. Elsasser observes that, although he is unable to state the proportion of cases in which menstruation occurs during pregnancy, it is by no means so exceptional an occurrence as supposed by some authors. It occurs more frequently in pluriparæ than in primiparæ; and it takes place much more frequently during the first half of pregnancy, and especially in the earlier months of this, than during the latter half. The amount of discharge, too, is smaller than in the normal menstruation. The duration of the pregnancy was normal in more than two-thirds of these cases (36), while in nearly one-third

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(14) of the cases it was interrupted—in 4 during its first, and in 10 during its latter half. As regards the development of the child, which by some authors has been supposed to be impeded by the occurrence of menstruation, this was found to be normal, or more than normal in three-fourths of the cases.—*American Journal of the Medical Sciences.*

AN EXAMPLE.

[From the Baltimore Christian Advocate of Dr. Bond.]

Patent Medicines.—We have received several applications to publish advertisements of an empirical character, all of which we have declined. To prevent such applications in future, we will now state that it is our purpose to refuse all advertisements of the kind.

We have before us an advertisement from a manufacturer of lozenges in Boston, supported by a number of commendatory extracts from papers religious and secular, which we are instructed to insert, and "print just like the copy."

In this advertisement it is stated that these lozenges will "instantly relieve" Coughs, Bronchitis, Asthma, &c. This is utterly untrue. Anybody who knows the nature of these affections, knows that the pretension to cure them by lozenges is false. To sell these lozenges to people under this pretense, is to obtain their money without equivalent, and through false representations. More than this, it is cruelty to speculate upon the necessities of the sick; to pillage those who have the strongest claim to our sympathy by abusing their confidence; and still more, it is to trifle with health and life by inducing the afflicted to postpone the use of rational means of cure, until their diseases becomes more formidable, perhaps intractable. In this abominable business we will have no participation. No pecuniary advantage can tempt us to abuse the confidence of our readers by publishing advertisements of the above description.

We do not mean to say that the proprietors and advertisers of patent and secret medicines are all as culpable as we would be if we should publish them. They may not know as much about such things as we do.

ARTIFICIAL DILATATION OF THE LARYNX IN CROUP.

Much discussion has of late taken place at Paris respecting a bold measure in croup—viz., actual catheterism of the larynx and trachea, followed by caustic injections, proposed and successfully practised by M. Loiseau, of Montmartre, near Paris. This operation is to prevent

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the necessity of tracheotomy, and has been warmly supported by M. Trousseau, in a report presented by this physician to the Academy of Medicine. Several successful cases have been quoted: one, however, proved fatal in August last.

The Academy has very recently heard another paper on the "Dilatation of the Larynx in Croup," to render tracheotomy unnecessary. The author is M. Bouchut, an eminent hospital physician of Paris. Trials were first made on the dead body, and a silver, truncated, hollow cone, a little smaller than a common thimble, was passed into the larynx, and was felt to dilate that passage perfectly. A series of instruments were contrived by M. Bouchut for the introduction of the cone, or canula, to which a silk thread is fixed, which hangs out of the mouth. Two children, affected with diphtherite, have been operated upon by the dilator, full details being given by M. Bouchut in a paper presented to the Academy of Medicine. Although the results have not been favorable in one case, it has been proved by these operations that a hollow, truncated cone can, in the paroxysms of suffocation of diphtherite, be introduced into the larynx, and there left for several hours, to the great relief of the child. Respiration, in both cases, became perfectly tranquil after the cone was introduced, the same being subsequently removed with the greatest ease. Further trials will prove whether this method of admitting air is preferable to tracheotomy.—*Lancet, October 2d*, 1858.

CLINICAL INSTRUCTION—JOCOSE "CLINICS!"

We have an exalted idea of the value of true clinical teaching; and have not failed, long since, to express our views in the JOURNAL upon this important subject. Whether the instruction be strictly clinical—that is, imparted at the bed-side—or such as the material afforded daily at our Dispensary Central Offices and Hospitals, to which outpatients now come in great numbers, offers abundant opportunities to descant upon, the chances of practical information to the medical student are large and increasing. This is a privilege which we, in our student days, did not enjoy; and these are the cases which will most frequently occur to the young and inexperienced practitioner; they should, therefore, be as familiar to him as "household words." The study of the *physiognomy of disease*, only to be acquired by this personal confrontation of the student with the examples of morbid affections, and by a reiteration of observations, patiently, day by day,

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is one of the chief means efficient in forming an acute and useful practitioner. We are glad to observe that much attention is paid to this department of medical study; the Faculty of our Medical College evince their appreciation of its value by setting apart a portion of time from the lecture routine, to be devoted to this object.

If it is desirable—nay, essential—that students have ample opportunities for the observation and appreciation of actual cases—it is even more so, that the teaching to which they listen should be of that character which will impress them with the importance and the true dignity of their profession. In the management of what are now termed "*clinics*," much tact is required. This is true in two different senses: first, no little share of ingenuity is often demanded in order to elicit, from the class of patients to be found in hospitals and in dispensary practice, the information absolutely needed, in order to prescribe judiciously for their ailments. Next, it is not an easy task to communicate information upon medical and surgical topics, in such a manner as will at once enlist the attention, and interest the minds of students. Too dry and circumstantial details, often repeated, and never varied, will weary—and an occasional departure from the stiff and precise forms of mere scientific communication, is not only often justifiable, but exceedingly useful. There are many patients, too, who can best be approached in a jocose way; and who are led to disclose certain important facts by a species of bantering. Harmless jokes may often pass between the patients and their medical attendant, or, occasionally, be hazarded by the latter alone, with benefit. This has been, at times, our own experience. We differ, however, widely, from those who think that the *publication* of these jokes, or of the ordinary conversation, necessarily taking place, between the practitioner and his patients, at the institutions to which we have referred, is desirable, or proper. For our own part, we are pained to see a tendency to adopt that *ad captandum* style, in reporting the preceedings of certain *cliniques*, which, to our mind, is always in bad taste, and lowers the dignity of the profession, in all eyes. We cannot understand how men, deservedly distinguished in their calling, can allow themselves to be thus shown up. Is it necessary, we would ask, to chronicle all the *chit-chat*, both relevant and irrelevant, which occurs during the examination of clinical-lecture patients, or of such as present themselves as out-patients at hospitals and dispensaries? Let the said chit-chat go on, if you please—make the "clinic" as pleasant as possible, to both patients and lookers-on—there is need enough of it, usually—but don't

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have it all strung out in type—it really is not creditable, to say the least.

We do not wish to be invidious, or captious, in our remarks—but where else, we would ask, do we see this sort of thing except in our own country? And do not those journals, and those authors of books who adopt it, suffer, sooner or later, not only in the opinion of their medical brethren, but in that of "outsiders," who happen to get wind of the thing? We confess to a feeling of disappointment, when we take up a book of real value—such, for instance, as *Professor Gunning S. Bedford's* indisputably is—and have to wade through long and profitless *conversations*, before we reach the gist of the matter. It really strikes us as only an appeal to the public, and a poor one at that.

Of course the remarks offered by distinguished practitioners (at the New York *cliniques*, for example) could not be published, entire, without their sanction—and yet we are treated, in the pages of the *New York Medical Press*, to specimens like the following, from gentlemen for whose scientific reputation and private character we have the very highest respect—yet to whose course, in this matter, we cannot but take exception. For instance, would it not have been more in accordance, not only with scientific interests, but with propriety and good taste, to have stated the treatment of the cases, simply, and to the point, without giving the detailed conversations which we quote? "Now, Madam, be kind enough to take your position on the bed, and I will very soon do what is right for you." "Thank you, Sir." "You perceive, gentlemen, I introduce this cylindrical speculum; I now have the cervix within the focus of the instrument, and, as you see, freely cauterize it with the solid nitrate." "Return here, Madam, next Monday; I will repeat the same thing again." "I shall, Sir." "Madam" was certainly very cool and collected after her *expose*, and conversed with great nonchalance! We conclude that, shortly after "next Monday," we shall be favored with a little more small talk of the same sort.

In the same number of the journal we have cited, there occurs another conversation, of about a quarter of a column, wherein the patient (who is styled by the prescriber his "good friend," twice, within the compass of a few lines) affords some amusement to the bystanders—and is *supposed* to do so to the readers of the above journal—by having misunderstood the doctor's language. A uterine tumor had been discovered; the questioner asks, "What did I call the tumor, my good friend?" "A *porpus*, Sir." "Oh! no, you misun-

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derstood me; I said a polypus." "Well, Sir, I know it sounded something like a *porpus!*" * * Now we submit that while it may be all very well to laugh at such a mistake, and air the joke, for a few minutes, at the time it is enunciated, the reproduction of it in a medical journal, as a part of the proceedings of a medical *clinique*, is worse than absurd—it is "flat, stale and unprofitable"—out of place and out of taste. The same kind of twaddle, upon the next page, is fully as objectionable: "Now, my good woman, if you will be kind enough to place yourself on this bed, I will remove the polypus." "Thank you, Sir."

But by far the most offensive specimens of so-termed clinical reports are to be found a few pages in advance of the latter extracts. In the midst of much instructive information, communicated by *Prof. Willard Parker*, the reporter thereof has seen fit to interlard the text with frequent informations of the occurrence of hilarity. The word "laughter" is parenthetically inserted no less than three times within a dozen lines. This reminds one of the similar interpolation of the words "applause," or "cheers," in political or other popular addresses. The only difference is, that in the latter case it is proper; in the former, anything but that. Still farther on, no less a person than *Professor Alonzo Clark* is reported as taking *his* turn at the same species of jocosity. "Will you tell us some features in your case?" "I don't remember any at present except that my heart feels large." (Laughter.) "That's no evidence, Madam, of its being so." "Let us look, gentlemen, into the objective symptoms." "Throw off your cape and furs, Madam, and arrange your dress in such a way that I may listen to your heart." "I have had dyspepsia for a long time, doctor." "We will consider that." Even the account of the "auscultatory signs," which follows, is given in a loose, affected style; and is terminated by a narration setting forth the action of tobacco on the heart of a medical brother, whose "beautiful wife" did not become a widow when he thought she would!

We cannot suppose for a moment that these gentlemen, so widely and creditably known, gave their clinical remarks, with their little interludes, (proper enough in *moderation* in the hospital ward or dispensary room,) in the expectation that they would be thus reported, in such very significant and *in*significant detail; but the question will arise, why do they *allow* their publication, after once seeing them? And, in this connection, we cannot but remark the striking contrast of the report from Bellevue Hospital, by Charles Phelps, M.D., House

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Surgeon. This is done in the style it should be; and conveys a clear idea of the circumstances of the case, in the terse terms which befit such communications. A weekly journal can hardly, we should think, devote much of its space, continuously, with advantage to its subscribers or credit to itself, to miscellaneous conversation, or to a jumble of that and scientific statements.

We have none but the best feelings and wishes to express toward any and every medical journal which seeks to enlighten the profession and to be its medium of communication; but we hold, that management of the sort to which we have referred, is, to say the very least, a *grave mistake.*

We confess to being somewhat amused by the closing sentences of the leading editorial of the New York journal mentioned; and we present them, as worthy of consideration: "We are well aware that other cities of our Union have made an advancement in medical matters, in ratio to their increase, commensurate with our own, and the knowledge of this fact gives us sincere pleasure, as it places our country, in that respect, not a whit behind the older nations, whose medical records filled many a heavy tome ere ours began; yet we maintain that Gotham is *The Metropolis.*" For a journal, which, at the time the above was printed (Dec. 25th, 1858), bore on its cover "Vol. I., No. 4," we contend that the sentiments—and particularly the last—are "pro——digious!"—*Boston Med. and Surg. Journ.*

EDITOR'S TABLE.

TO OUR SUBSCRIBERS.

All who have paid their subscriptions for 1859, (see "Receipts" in the present and last numbers,) will receive their numbers *free of postage.*

If any find themselves taxed with *postage*, they are thus reminded that they are *delinquent* on our books, and may relieve themselves by *promptly* remitting their dues.

Our paying subscribers have our thanks, and we need a few more such; although new subscribers come in fast enough to take the places of a few who are offended at the truth, and essay to punish us by stopping that $2, the price they pay to be let alone. *Certain brethren cannot bear the light, but it will shine none the less in the* GAZETTE.

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☞ As *advance payment* is the rule, we have begun to curtail and prune our list, and shall stop the GAZETTE *after this month* to all delinquents, who have *received their bills and failed to pay*. Let none complain after this notice.

If any mistakes occur, they will be promptly corrected on hearing from the parties.

DEATH OF SAMUEL S. WHITNEY, ESQ.

Testimony of his physicians, DRS. J. C. BEALES, VALENTINE MOTT, and HORACE GREEN. Official report of the *post-mortem* by DR. ALEXANDER B. MOTT. *Cause of death*, as certified to the CITY INSPECTOR. Explanations and vindications, statements and counter-statements, criminations and recriminations, before the N. Y. Academy of Medicine on the part of the doctors. The latest *Parisian* fashion of attempting a *diagnosis* after the patient is *dead!* and blundering at that!

"The doctors found, when she was dead,
Her last disorder *mortal*."

MADAM BLAIZE.

The last excitement among the public and the profession of New York has arisen from the death of Mr. Whitney, a respectable and wealthy citizen, who, as will be seen, himself ascribed his last illness and death to the topical treatment of his throat with the sponge probang by Dr. Horace Green. So vehemently did he assert this opinion, that his family and friends not merely, but his physicians, as will appear, were so fully impressed with its truth, that even before his death the rumor became general through the city that the probang had perforated the trachea or larynx, and to this malpractice the accompanying emphysema of the neck, face and chest was attributed, which indeed was a very natural inference from the premises, had the latter been true. The newspapers at home and abroad took up the rumor, that our neighbor, Dr. Green, had killed his patient, and both he and his method of cauterizing the throat were suitably denounced. Our medical brethren who are very generally in the daily use of similar instruments in analogous cases, as well as their patients, were startled at these rumors, and this mode of practice seemed to be coming to a dead halt.

But the death of Mr. Whitney occurring after several days of suffering from obstructed deglutition and respiration—during which time his physicians, Drs. Beales and Mott, made every effort for his relief—

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an opportunity was afforded for verifying the diagnosis of the patient, which was that also of the two doctors, for they had found it impossible even to look into his throat. The post-mortem was resolved upon; but unhappily Drs. Beales and Mott consented to make it, so far as Dr. Green was concerned, clandestinely—since Dr. Mott's son was employed for the purpose, but neither Dr. Green nor any of his friends were allowed to be present; and this, though all the gentlemen expected to find a perforated larynx or trachea, and a consequent implication of Dr. Green in his charge of having killed the patient, "not intentionally" to be sure, but by awkwardness or unskillfulness, which would have been fatal to his reputation. But even under such circumstances no notice was given to Dr. Green; a right which courtesy and ethical propriety alike demanded, and one which has never before been withheld in the annals of honorable medicine. But what must have been the surprise of this dissecting caucus, when on opening the larynx and trachea they found no perforation or other lesion in either, the mucous membrane of these organs being a perfect type of health? Their surprise, while it overthrew the diagnosis of the patient, in which they had fully acquiesced, only forced the conviction that the cause of death had yet to be discovered, for it was not where they expected to find it. Hence they proceeded posteriorly, when the scalpel detected pus anteriorly, laterally and posteriorly to the pharynx, where an acute abscess existed, as "large as a hen's egg," and which, though full, "*had a hole in it large enough to admit the finger!*" Now they learned, for the first time, why the patient could not swallow, and why his respiration was obstructed. Supposing that they had now reached the cause of death, a new theory was started, viz., that the sponge probang of Dr. Green had created this abscess, by lacerating the pharynx, and this, though the opening was in a part of the organ which the instrument could not by possibility reach. Still this was a happy thought, for it seemed to favor the discovery of the sapient committee of the Academy, that Dr. Green in his operations only enters the pharynx, when he claims to enter the trachea.

Unfortunately for the theory, however, they had to open the thorax, and here they seem to have found another cause of death in an anomalous abscess in the lung, and the mysterious emphysema was found to have arisen from ulcerated openings in the pleura! All this mischief in the chest seems to have been ascribed to Dr. Green, who had injected into the lung a drachm of the solution of the nitrate of silver, 15 grs. to the ounce, some ten days before death occurred. Unless,

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indeed, the *tube* only entered the pharynx, in which case the injection never reached the lung, and that apparent sloughing, spoken of in the post-mortem, would be nowhere. But now came up the question, what report shall be made to the City Inspector of the "cause of death," so many causes having been found. The theory of Dr. Beales, after the perforated trachea was not to be found, seems to have been that death was the result of the abscess behind the larynx and pharynx, and that this was caused by Dr. Green's probang. He did not so report, however, either to the City Inspector or to the Academy. To the former he says, "*Effusion into the lungs!*" and to the latter, "He died partly from *exhaustion* and partly from *asphyxia!*"

Dr. Mott, however, more wary than his colleague, ascribed very numerous causes of death, confessing himself at his wit's end to decide, even *after* the post-mortem, which of Mr. Whitney's complicated diseases killed him; and hence enumerated before the Academy, as "causes of death," each and every pathological lesion discovered, whether in the pharynx, or bronchia, or lung, or pleura; adding, "he died of all these, being blown up with emphysema!" All of which incongruity and prevarication might have been spared, had the simple fact been stated, that the "*direct*" cause of death was *suffocation*, and the "*indirect*" cause an *abscess* near the œsophagus, which mechanically prevented deglutition and respiration. But this plain statement would have exonerated Dr. Green, and implicated nobody, though it would have disappointed the scandal mongers, whether in the profession or out of it.

In this brief reference to the medical aspects of this case from a professional stand-point we only perform our duty as a public journalist. We disclaim any, the least prejudice or partiality for or against either of the medical men concerned, all of whom we regard as personal friends, worthy of all honor as men, and as physicians. But believing, as we do, that Dr. Green has been wrongfully blamed before the public, and that his treatment of Mr. Whitney had no agency in the fatal result, it is our opinion that the two medical gentlemen into whose hands the case fell should have insisted that Dr. Green, or some one to represent him, should be present at the post-mortem, and that they greatly erred in consenting to such an inquiry in the absence of a professional brother, their equal in every respect, who was expected to be implicated by the result. We regret their course for their own sake, rather than Dr. Green's, who has thus been placed in the vantage ground with that portion of the profession and the public who can appreciate right and justice.

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We think, moreover, that they greatly erred in not silencing the public clamor against their professional brother and equal, by authoritatively exonerating him from the rumors they had countenanced, so soon as the post-mortem had proved that no lesion had been made in the larynx or trachea. The fiction that the patient was dying of an inaccessible abscess in the throat, in two hours after the last introduction of the probang, is too idle for belief. That this abscess had a sufficient volume to compress the œsophagus, with a hole in its wall large enough to admit the finger, while yet filled with pus, is the very error of the moon. While to ascribe the chronic abscess in the lung and ulcerated pleura to either of Dr. Green's operations, is the climax of absurdity. Neither Dr. Beales nor Dr. Mott should have indulged these and the like speculations, but admitted frankly the now obvious truth, that they failed to find out what was the matter during life, or what was the "cause of death" by the *post-mortem*. This would have been no reproach to their professional sagacity and reputation, but would have exalted both, for equally great men have been equally at fault in obscure cases, and gracefully recorded it for the instruction of posterity. Lastly, the certificate of death given to the City Inspector, viz., "Death from effusion into the lungs," was singularly unscientific, and worse, it did not conform to the fact by their own showing. We repeat that the man died of *suffocation*, of which "exhaustion, asphyxia," and even "pulmonary effusion," could only be the fruits or sequela. The emphysema was traceable to the pleuritic and pulmonic lesion, and to this alone. Had our brethren only stated the facts, injustice would have been done to nobody.

The attention of the reader is now invited to the documentary history upon which our opinions are based. They were spread before the N. Y. Academy of Medicine, and are, viz.:

Dr. Horace Green's Statement.—His Treatment of Mr. Whitney.

The doctor stated that this unfortunate case was first presented to his notice on the 25th of October last. Mr. Whitney came in with the rest of his patients, and made two calls at his office before he saw him. His assistant informed him that the gentleman had called, but would not wait for his turn, and wished to see him at once; to which he replied that his rule in such cases should be adhered to, and that, unless in the case of a lady, the patients should wait for their turn. Mr. Whitney then came in in his turn, and entered his name on the doctor's book, as all his patients did. He stated to him that he had been in ill health for two or three years, and that for the last two

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months he had quite a bad cough, and he also complained of his throat and chest. He stated also that some physician had examined him before, and had told him his lungs were affected. He (Dr. Green) then made an examination of his chest by auscultation, in the presence of his assistant, Dr. Richards, who, as usual in all cases which he examines, made a note of it at the time. He found the chest thin, a little depression on the left thoracic wall; percussion gave a flat sound over all the upper portion of the left lung. On applying the ear to the chest a distinct mucous rale or click was heard below the left clavicle in both inspiration and expiration. These symptoms when accompanying the signs, were indicative, in his (Dr. Green's) experience, of the presence of tubercular softening. Mr. Whitney's throat appeared granulated and inflamed, and the left tonsil was slightly enlarged and ulcerated, the epiglottis was thickened, and its border whitened with a line of erosion. The doctor then gave an account of the several interviews which he had with Mr. Whitney from the 26th of October to the 14th of December, and his treatment on these occasions—the application of a solution of nitrate of silver to the fossæ, epiglottis, and into the glottis, and the use of the "probang." The visits of the patient occurred at such long intervals that he found that the parts were not prepared for the introduction of the tube; but as Mr. Whitney had several times expressed a desire to have it used, he (Dr. Green) resolved, on the 6th of December, to make the attempt. The tube was therefore introduced, and the nitrate of silver applied. Dr. Green then proceeded at length to detail the facts of the case, and stated that he had not seen Mr. Whitney from the 14th of December until he heard of his death. He was most willing that the matter should be discussed by the Academy, and he left the matter entirely in their hands. Dr. Green continued at some length.

Remarks by Dr. Foy, who saw the Application upon the Deceased.

The President then said Dr. Foy should next be heard.

Dr. Foy rose and said: I was present on the occasion described by Dr. Horace Green, and saw the application made upon Mr. Whitney. Dr. Green has stated exactly the particulars of that occurrence. On introducing the probang into the throat of the decedent, he made a sudden motion of the head, and gave an expression of pain. The pain was not greater than I myself have felt upon having the uvula touched with nitrate of silver. The date of that visit is fixed upon my mind with certainty; so, also, is the size of the probang, for I remember noticing it very particularly, and telling Dr. Green that I

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could not get even a small probang, nor one thus curved, at the druggist's. Mr. Whitney left the office before I did, and left it not suffering any particular inconvenience.

Statement of Dr. J. C. Beales.

I find myself in a very disagreeable situation. It is the first time I was ever engaged in any controversy with any of my professional friends; and you have never known me to enter into any professional dispute of any kind before. I always have avoided it. Upon the present occasion I shall be forced to take a position antagonistic to Dr. Green, for which I have abundance of evidence; and I assure you it is not voluntarily assumed, but forced upon me.

In the statement of the case I am about to read to you I am sorry to say that there are some expressions in the commencement which are put in with very great reluctance, but owing to the different reports that have been circulated, I felt it necessary to insert them, that you may have a just comprehension of the state and feeling of the patient.

Condition and Feeling of Mr. Whitney between his Last Treatment by Dr. Green and his Death.

Dec. 14, 1858.—About one in the afternoon I was called to see Samuel S. Whitney; I found him surrounded by several members of his family, in a state of the most intense excitement, suffering and terror; in answer to my inquiries as to what had happened, he answered, "Sit down, Beales, and I will tell you the truth; I was such a fool as to go to Dr. Green to be operated upon, and the d—d villain has killed me." His countenance was pale and haggard, and had all the appearance of a man whose nervous system had received a severe shock; his breathing was occasionally irregular, and almost spasmodic, coughing almost incessantly, and speaking with great difficulty and pain, in a hoarse and unnatural tone of voice; his skin was cold and clammy, and covered with perspiration; the pulse was extremely frequent, feeble, irregular and intermittent; he was excessively restless, not remaining in the same place more than a few minutes at a time; complaining of intense pain in the region of the larynx, shooting through to the cervical vertebræ, and down the course of the trachea to the chest; he kept grasping the larynx, and reiterating every few minutes that he was murdered; I endeavored to calm the excitement of the patient, and tried to examine his fauces and throat, which appeared in a state of great inflammation; I discovered no lesion, as, in fact, on account

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of the pain and terror of the patient, the examination was necessarily very imperfect, as he would scarcely allow the spoon to touch his tongue, and I concluded, therefore, to defer the examination till he should become more quiet; I gradually ascertained, partly from the family and partly from himself, that he had been several times to see Dr. Green; on the first occasion his tonsils had been amputated; on a subsequent occasion, ten or twelve days previously, (the exact dates were not told to the relator,) "a hollow tube had been passed into his lungs, and about a teaspoonful of solution of nitrate of silver had been injected into them by touching a spring at the top of the tube." Whether this was done more than once the relator does not recollect to have been stated. On the 14th of December Mr. Whitney breakfasted with his family, appearing to be in his usual health; he afterwards went to Dr. Green's office; "the doctor passed an instrument into his throat, and finding some obstruction, he pushed the instrument with some force; he (Mr. W.) felt something give way, immediately experienced severe pain about the top of the windpipe, and told the doctor he had hurt him;" he returned home, informed the family of what had occurred, and I was called as before stated. 1 P. M., I saw him with the symptoms, and in the state previously described; it was evident that, under these circumstances, the only indications that could be followed were to rally the patient's strength, to produce some reaction and to moderate the local irritation in the fauces; to this effect I ordered him to be immediately put in bed, bottles of hot water to the feet, with sinapisms to the extremities and chest, and flaxseed poultices to the throat; a teaspoonful of chloric ether or volatile tincture of valerian in water occasionally, till reaction should be established, and a mixture composed as follows: br. ol. amygd. dulc. syrup papav. som. mucilag G. acac. liquor, potass., a dessert spoonful to be slowly swallowed occasionally. For nourishment he was allowed arrowroot and flaxseed tea.

Dec. 14, 7 P. M.—Is suffering severe pain, described to be in the larynx down the course of the trachea to the chest, and round to the cervical vertebræ; pulse 112, feeble and irregular; still excessively restless; other symptoms are about the same; insisted on my remaining with him all night. R. antimonial solu. S. morph. syrup gummi, ing aq. distill, a dessert spoonful every four hours; to inhale the vapor of infusion of flaxseed and poppy heads.

Dec. 15, 3 A. M.—They called me, as they observed the face to be swelling; I found extensive emphysema all round the neck, and partially in the face, rather more noticeable on the left side; he had con-

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tinued exceedingly restless, scarcely dozing for a few minutes, breathing very irregular; pulse 106; urine scanty, very high colored, and turbid. Continued the same remedies and nourishment.

1 P. M.—Heat of surface more natural; scarcely any pain in the chest, emphysema very much increased round the throat and face, and extending down the chest; has not slept; has taken scarcely any nourishment on account of the pain in swallowing; could not continue the inhalations, although they rather relieved him temporarily. Anodyne liniment to be applied to the throat and chest.

8 P. M.—Dr. Valentine Mott saw him, in consultation with me. Is decidedly worse; emphysema very much increased; neck and face enormously swollen, it has extended all over the chest, but lower down on the right side; breathing somewhat labored; pulse very feeble, irregular, and 112; skin is again covered with clammy perspiration, and about the neck and chest of a purplish erysipelatous appearance; does not particularly complain of pain, except on talking or swallowing. Dr. Mott gave a very unfavorable prognosis. Continue anodyne, and take alternately a teaspoonful of ammoniated tincture of valerian.

Dec. 16, 6 A. M.—Upon the whole has passed a more comfortable night; symptoms are all a shade better; the emphysema rather less in the face, but the throat and the chest are enormous, the mammæ resembling those of a stout nursing woman. Continue wine whey.

1 P. M.—With Dr. Mott. The emphysema extends to Poupart's ligament, on the right side; but only as low as the umbilicus on the left; cough less frequent, except when he swallows; pulse 108, and rather firmer. Same remedies and nourishment.

9 P. M.—With Dr. Mott. Is not so well; emphysematous swelling increasing; cannot open his eyes till the air is carefully pressed out of the lids; chest and abdomen still more swollen; pulse more feeble, 122, although he had taken nourishment more freely. Same remedies.

Dec. 17, 6 A. M.—Has slept more during the night, sometimes for nearly an hour at a time; has taken more nourishment, but there begins to be considerable mucous secretion, which interrupts his respiration, and gives him great trouble to expectorate; pulse very irregular and feeble; the slightest movement increases its frequency; it averages about 108.

1 P. M.—With Dr. Mott. There is no observable change in the symptoms, although he says he feels more comfortable; several attempts have been made from time to time to examine the fauces and adjacent parts, but the excessive swelling rendered them useless.

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9 P. M.—With Dr. Mott. There is again a slight lull in the symptoms, excepting the pulse, which is extremely irregular at 108; same remedies.

Dec. 18, 6 A. M.—Has passed the best night since the attack; there is a decided improvement in all his symptoms; emphysema slightly subsiding; pulse 90; is rather more hopeful.

1 P. M.—With Dr. Mott. We consider him decidedly improving; all the symptoms are milder; he is slightly flighty from the effects of the anodyne.

9 A. M.—Is not so well again, without any other apparent cause than he would get up during my absence and sit for about an hour in a chair; the pulse is more frequent and irregular; the difficulty of swallowing is also evidently increasing, the attempt to do so bringing on coughing, partial strangulation, and some regurgitation of the fluids.

Dec. 19, 6 A. M.—Passed a very bad night, principally owing to the great increase of the mucous secretion, that keeps him almost constantly coughing and expectorating, which he does with great difficulty and suffering; the pulse very frequent, feeble, and excessively irregular; take half the dose of the anodyne at a time:—(R. Ammon. carbonat, grs. iv.; emuls. amygd. dulc., dr. i., every four hours, in place of the tinc. valerian ammoniat); although it is certain that there is some serious lesion in the vicinity of the glottis, yet it is utterly impossible to ascertain the state of the parts; the emphysema has rather subsided about the upper part of the face, so that he can partially open his eyes.

1 P. M.—With Dr. Mott. Has slightly rallied, but the mucous secretion is increasing; the cough more frequent, and difficulty of swallowing greater; bowels have not acted for three days; continue remedies; injection; give as much nourishment as possible.

9 P. M.—All his symptoms much worse; pulse more feeble, 120; difficulty of swallowing, with the coughing and strangulation very much increased; consequently has not been able to take so much nourishment.

Dec. 20, 6 A. M. Has passed a very bad night; breathing labored, and all the difficulties of swallowing, &c., increasing; the emphysema rapidly disappearing from the face and throat; abdomen distended and tympanitic; injection did not operate; a tablespoon full of castor oil.

1 P. M.—With Dr. Mott. All the symptoms gradually becoming more serious.

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10 P. M.—Is very much worse in every respect; respiration excessively labored; the slightest attempt to doze threatens suffocation from the accumulation of mucus; can with difficulty be induced to swallow; the oil operated twice, and he was excessively exhausted; pulse extremely feeble and irregular, 126; he is evidently sinking.

Dec. 21, 7 A. M.—During the night he became rapidly worse; did not swallow after 2 A. M., and died rather suddenly at 8 A. M., partly from exhaustion and partly by asphyxia.

Note.—A number of trifling circumstances, such as the varying appearance of the urine, the continual slight changes in the symptoms, &c., as not throwing additional light on the case, have been omitted, in order not to make the statement too tedious.

J. C. BEALES, M. D.

As far as relates to this case, from the time I was called in, it is a faithful narrative.

VALENTINE MOTT, M. D.

I certify that this is a faithful copy of the original.

J. C. BEALES, M. D.

NEW YORK, *Jan.* 18, 1859.

Post Mortem of Samuel S. Whitney.

NEW YORK, *Dec.* 22, 1858.

Thirty hours after death nothing peculiar in the appearance of the body. Rigor mortis quite moderate. On making an incision from under the chin, in the mesial line of the sternum, it was remarked that the anterior projection of the thyroid cartilage was more than ordinary. Directly as the knife divided the deep cervical fascia on the left side of the thyroid cartilage, pus issued out; a little further division opened into a cavity, containing pus, about the size of a large hen's egg, and extending a little in front of the pharynx, and downward behind and below the thyroid cartilage. At the upper and posterior part of this abscess there was an opening into the pharynx, large enough to admit the end of the forefinger. This abscess was lined by a large quantity of destroyed filamentous tissue, hanging from different parts of it like wetted tow. The entrance into the œsophagus immediately below this was perfectly sound, internally and externally. The larynx was now laid open from behind, and at the first glimpse, a red point about the size and shape of a grain of wheat on the left side, a little below the left chorda vocalis, and running longitudinally, led us to exclaim there is the point of laceration of the mucous membrane, by which the air has escaped into the cellular tissue

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to constitute the emphysema. On close inspection, and wiping the part with a sponge, no abrasion or aperture could be discovered. Every other part of the larynx and trachea, as far as removed, presented on its internal surface a perfectly normal appearance. Indeed, we all remarked, that we had never seen a larynx and trachea more natural and healthy. We next concluded to have a look at the bronchi and lungs. Perhaps about an inch above the division of the trachea, the most beautiful vermilion redness that we ever saw on a mucous surface commenced and extended into each bronchus, but greatest in the left, and extended down each lung. Over this peculiar redness there was a cloudy shade, which vanished after a short exposure to the air. On opening the pleura, the upper lobe of the left side, at first glance, seemed covered with white thick pus. But, on close examination, it proved to be soft, strumous-like fibrin, easily rubbed off. This, on the side and posterior part, connected that lobe in patches to the pleura costalis. These imperfect adhesions were easily broken down with the fingers. The whole of the upper part of this lobe was very red and solid—hepatized. Just at the root, or at the commencement of the bronchial ramifications, there was an open cavity, about the size of a small black walnut, of a reddish brown color, and irregular villous surface, as though a slough had separated. At the upper and anterior part of this cavity there was a small opening through both pleuras. This lobe was cut into in different directions, but no tubercles could be found. The lower lobe was perfectly healthy. The redness of the mucous membrane of the right bronchus extend to the lung of that side, but the three lobes were perfectly normal. There were no old adhesions on either side of the cavity of the chest. Some little appearance of the emphysema remained.

(Signed,) VALENTINE MOTT, M.D.
J. C. BEALES, M.D.
ALEX'R B. MOTT, M.D.

Statement of Dr. Beales.

DR. BEALES said: During the number of years that I have attended Mr. Whitney's family, I have not known Mr. Samuel Whitney to be seriously ill, so as to be confined to his bed; but he has for a long time been subject to various derangements of the digestive organs, such as want of appetite, torpidity of the bowels, deficiency of the bilious secretions, and occasionally a bronchial cough. For these I have frequently prescribed for him; but during the whole or greater

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part of the last year (as I have been informed by the family) he placed himself under the care of a homœopathic physician, so that, with two or three trifling exceptions, I was not called on to prescribe for him until the present occurrence. Toward the end of October his sister informed me that her brother was very low-spirited and depressed, as some physician had informed him his lungs were very much affected. He wanted me, therefore, to examine him, but did not want me to know that he had consulted any other physician. I was not told who it was, nor do I know to this day, although I now presume it to have been Dr. Green. Sir, I wish to state that I appreciate the stethoscope as highly as most men; I believe it, as most others do, one of the greatest discoveries in our profession, but I frankly confess that I do not believe in its infallibility, even aided by percussion. I do not believe that any man can at all times discover one or two, nor even a few tubercles, scattered about the upper lobes of the lungs. I am sure that every man, if he would frankly tell the truth, would admit that he had occasionally been mistaken. For myself, I do not pretend to any extraordinary skill with this instrument, but, independent of my private practice, I have been for fifteen years examiner for various life insurance companies, and therefore I constantly make use of it, and ought to know something about it. Now, under these circumstances, well knowing the opinion of the other physician, I examined Mr. Whitney with all the care and accuracy of which I am capable; I declared to him that I could not discover any tubercles in his lungs, and that I did not believe that any existed. [No notes of the examination.] Now, Sir, on turning to the report of the post-mortem examination, it will be seen that a "cavity" was found, but not a single tubercle. I will not, of course, assert that such a thing as a tuberculous cavity never exists without the presence of other tubercles, but I do say, that it is a most rare and exceptional circumstance; but I wish to make a few remarks on this "cavity." Was this a *tuberculous* cavity? It neither contained any kind of fluid, nor was it lined with lymph, nor the slightest appearance of false membrane, nor were there any remains of *tuberculous* deposit, and *I* at least have never seen a tuberculous cavity similar to it—in fact, although that word was used in the report as probably most readily occurring, it could scarcely be justly so called; it was rather a shallow depression or scooping out of the actual apex or superfices of the lung; its surface was not like that of a "cavity," but rough and irregular, and had that peculiar appearance, that all present remarked

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it looked as though a slough had separated. Communicating with it was a perforation in the pleura, sufficiently large to admit the little finger of the gentleman who had operated; all other appearances about the lung were of the most recent disease, the hepatization was in its earliest stage, and the adhesions spoken of were so recent that the folds of the pleura were, more properly speaking, glued together, than adhered. We did not discover the slightest sign of chronic disease in or about the lung, and so striking was this fact, that Dr. Mott told the family, after the post-mortem examination, that we had not seen any disease that might not have been produced within a week. But Dr. Mott is here to speak for himself. Dr. Green says that the epiglottis was thickened and its border whitened with a line of erosions. At the post-mortem, this part was very minutely and carefully examined, and found to be extraordinarily healthy and free from the slightest vestige of disease. Under all these circumstances, I am forced to believe that Dr. Green erred in his diagnosis, and that these various operations were unnecessary and uncalled for. I do not say that the operation of tubing caused the disease in the lung, because I confess myself ignorant of the effects of nitrate of silver on the substance of the lungs; but for the operation itself, I do not hesitate to express my conviction that it is at all times attended with extreme peril and risk of the patient's life. I have never heard of or seen a single case of phthisis where it has effected a cure, and therefore I believe it to be perfectly unjustifiable. I believe that a slough or eschar was formed at the apex of the lung, involving the pleura, and which, at the time of the unfortunate occurrence, became separated by the violent exertions and spasmodic coughing—the air percolated into the cellular substance, and produced the emphysema which formed so prominent a symptom. I will now leave this part of the case, and go on to that which was, after all, undoubtedly the immediate cause of the death of the patient. I mean the lesion of the pharynx. By referring once more to the post-mortem examination, it will be seen that there was a lacerated opening in the pharynx communicating with a large abscess. I have heard it rumored—and, indeed, it has been stated in the public papers, especially in an article in the *Tribune*, which is evidently from a suspicious source—that this abscess was chronic. Insinuations were made against Dr. Mott and myself in regard to it. If, Sir, the friends of Dr. Green have given currency to this idea, or intend in any way to suggest it, then has the Doctor ample reason to say "Defend me from my friends." It appears by

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his own statement, that for two months previously to his death Mr. Whitney was under the professional care of Dr. Green; for my own part, I solemnly declare, I have never prescribed for nor heard him complain of his throat. Early in October, the Doctor cut out one of the tonsils. Did the chronic abscess then exist? If so, how was it that the Doctor did not discover it? He several times applied the sponge and probang—did the abscess then exist? On the 8th of December Dr. Green states that he passed the tube down the trachea. This, at all events, whatever we may think of the operation itself, requires a careful observation of the parts; did the abscess then exist, and the Doctor not discover it? But, Sir, on the very day of the last unfortunate operation, Dr. Green was showing to Dr. Foy how he applied the sponge to the larynx, and showed why it only entered the pharynx—of course the organs were closely observed—how was it that the Doctor did not diagnose this chronic abscess? Why, Sir, the reason that Dr. Green did not see this chronic abscess, was because it did not exist. Sir, I do not believe that among all those who are now listening to me there are two opinions. At all events, to my mind, the evidence is irresistible, that in the last unfortunate operation, on the 14th of December, the pharynx was accidentally lacerated by the probang; the first effects, as we have seen, were excessive irritation of the parts, and a severe shock, increased, no doubt, by the nervous temperament of the patient, and his conviction that the injury was fatal. Afterwards, doubtless, portions of the various foreign bodies he attempted to swallow, food and medicine, were forced into the wound. After three or four days, a sloughy abscess began to be formed, which, gradually increasing in size, formed a mechanical obstruction to swallowing; by pressure on the adjoining parts, prevented the epiglottis from properly closing, and produced the strangulation and regurgitation which we have noticed, till at length the unfortunate patient sank from exhaustion and asphyxia. I wish now, Sir, with your kind permission, to make a few remarks with respect to the post-mortem examination. I perceive by statements in the public papers, the source of which can easily be understood, that we are censured for not having Dr. Green present. I need not say that, as the case progressed, the excitement and feeling in the family did not diminish. I do not think that on this point I have the right to judge Dr. Green; he doubtless did what he thought right in the matter; but had he, by sending inquiries, shown any sympathy with the misfortune of the family, it would have afforded an occasion

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to Dr. Mott and myself to have introduced him; that he did not so act, was repeatedly remarked by many of the family. Now, under these circumstances, it was no pleasant thing to ask permission of the family, and I frankly allow we did not; but, for myself, I solemnly declare, that I went to that examination without the slightest idea of criminating Dr. Green, but with the earnest desire to ascertain the nature and extent of the injury. But let me ask, What do these insinuations mean? I will tell you how the post-mortem examination was arranged: I asked Dr. Mott who he would wish to perform it; he replied, his son, Dr. Alexander; and on the day of that operation I was introduced and spoke to that gentleman for the first time in my life. The insinuations to which I have alluded either mean that we were not competent for the examination, (if so, let the truth be told,) or that the examination or report was distorted to meet particular views. On this point I shall merely remark that Dr. Alexander Mott has never, till to-night, heard me say a word as to my views of the case. I do not know his. We have never interchanged a word on the subject. Both he and his father hold such positions in the profession and society, as ought to place them beyond such calumnies. As for myself, those who know me, Sir, will not, I am proud to believe, imagine me capable of misrepresenting solemn facts, for any purpose whatever; and this is all, Sir, I think it needful to say in answer to these unmerited and disgraceful inuendoes.

Dr. Valentine Mott followed, strongly substantiating the post-mortem examination, which, he said, was prepared by himself, and controverting Dr. Green's theory of the case.

Dr. Green said: I do not rise, Mr. President, to make any speech. So far as I am concerned, I am willing to leave this whole subject to my professional brethren connected with the Academy, and to the profession throughout the whole world. In the first place, however, I may be allowed to say that there are some insinuations to which Dr. Beales has referred, which are improper and groundless. It has been inferred that I have sought to keep this *post-mortem* examination from the public. I should have been very glad at any time to have it published, as its publication would have saved a great many persons from having exposed themselves to heavy damages for libel, for it shows that there was no perforation, and no injury done to Mr. Whitney at the time; but that was not my reason for withholding it. I came before you, gentlemen, and stated the case candidly. It was at the urgent re-

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quest of my friend Dr. Mott, (for I shall so consider him, notwithstanding all this,) that nothing should be brought before the public in relation to this, except through the Academy, that I refused to give this *post-mortem* over for publication. I have his written request here, and I offer to read it if he will allow me. Since the last meeting of the Academy I have been visited by, I presume, no less than ten editors, desiring me to surrender that *post-mortem;* and there are some of the gentlemen here present to whom it was positively refused. I declined also to give it, at the advice of my friends, and in conformity with my own feelings, and these gentlemen of the Press can testify whether I did not so refuse. If I am permitted, I will read from Rokitansky's *Pathological Anatomy*—an authority on the subject which no one here will question—a description of one variety of tuberculous cavity, which, I think, will hardly be found to concur with the inferences of the gentlemen by whom this *post-mortem* examination was made. At page 103 of the Sydenham Society's edition, he says:

"*Infiltrated tubercle,* unlike interstitial tubercle, is actually deposited in the cavities of the air-cells. It arises from a more or less extensive croupous pneumonia, whose products, under the influence of a tuberculous infiltration, becomes variously discolored and converted into yellow tubercle, instead of being absorbed or dissolving into pus. Hence tuberculous infiltration presents the form of *hepatization,* induced by a tuberculous product." * * * * *

And again, at page 112:

"The contents of tuberculous cavities present many differences. Sometimes, and especially when the infiltrated tubercles begin to soften, these caverns contain a yellow and somewhat thickish pus; more frequently, however, they contain a thin, whey-like fluid, (tuberculous ichor,) in which may be observed numerous grayish and yellowish, friable, cheesy, purulent flocculi and particles, whose quantity, however, is not in itself sufficient to explain the profuse expectoration which so often occurs in phthisis. This fluid is often of a grayish red, or reddish brown—(mark the similarity of the phrases here and in the gentleman's report)—or chocolate color, from the admixture of blood; or of an ash or blackish gray color, from the pigment which it takes up during the softening of the tissue. Moreover, the caverns sometimes contain smaller or larger fragments of lung, resembling the parenchyma contained in their walls, and chalky concretions are occasionally found in them."

In the next place, I would say that the inference is left to be made

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by the members of the Academy, that this sloughing was produced by an injection administered on the 6th of December, between which and the date of Mr. Whitney's death (on the 21st, I think,) an interval of fifteen days elapsed. Now, every gentleman of the Academy who understands what they are now doing in France, knows well that during its last five sessions the French Academy has been occupied in discussing this very subject of injection and cauterization in diseases of the air-passages, admitting unanimously that this operation is not only performed with safety, but that great beneficial results follow therefrom. And within the last few months large numbers of young and delicate children—1, 2, 3, 4 and 5 years of age—have been treated for croup by injection with nitrate of silver into the larynx, by such men as MM. Trousseau, Loiseau, Bouchut, and others. Professor Bennet, of Edinburg, in describing his use of the introduction of the tube and injection into the lungs, says:

"My period of attendance on the clinical wards having expired in January, it was not until last May that I had an opportunity of making a series of observations on this subject. I was then fortunately assisted by Prof. Barker, of New York, who showed me the kind of catheter he had seen Dr. Green employ, and demonstrated the manner in which the operation was performed. Without entering into minute particulars, I have only to say that I have confirmed the statements made by Dr. Horace Green. I have introduced the catheter publicly in the clinical wards of the Royal Infirmary in seven patients. Of these, five were affected with phthisis in various stages; one had chronic laryngitis, with bronchitis; and one chronic bronchitis, with severe paroxysms of asthma. In several other cases in which I attempted to pass the tube, it was found to be impossible—in some because the epiglottis could not be fairly exposed, and in others on account of the irritability of the fauces and too ready irritation of cough from pressure of the spatula.

"My experience of this treatment is as yet too limited to permit my saying anything of its permanent effects. In the case of bronchitis with asthma—a female, aged 24—I have now injected the lungs eleven times, at first throwing in two drachms of a solution of nitrate of silver, of the strength of half drachms of the crystalized salt to one ounce of distilled water, and latterly I have thrown in half ounce of a solution of the strength of two scruples to one ounce. She declares that no remedy has had such powerful effect in lessening the cough, diminishing the expectoration, or delaying the asthmatic paroxysms.

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She breathes and blows through the tube, when inserted four inches below the larynx, and I have been surprised at the circumstance of the injections not being followed by the slightest irritation whatever, but rather by a pleasant feeling of warmth in the chest, (some have experienced a sensation of coolness,) followed by ease to the cough, and a check for a time to all expectoration.

"I think it of importance that these facts should be known to the profession, as a homage justly due to the talents of a distinguished Trans-atlantic physician, and with the view of recommending a practice which, if judiciously employed, may form a new era in the treatment of pulmonary diseases." [Applause.]

I have only one word more. I never go, unless requested by some one, to see a patient. I did not desire Mr. Whitney to come and see me. He came of his own accord. I treated him legitimately, and, I believe, properly. When he left me and went under the care of another physician, should I lower myself by dogging him, and thus degrade the profession? [Applause, and cries of "Good!"] Never. Had they sent for me, (I having had several cases of retro-pharyngeal abscess, where I have saved the lives of the patients by opening those abscesses,) I would not have hesitated to go. I saved my 2 or 3 patients in this city by opening the abscess; they failed to do so. Why should they not come out as magnanimously as Carmichael did, when, having lost two patients from having overlooked a pharyngeal abscess which was not discovered until after death, he bravely acknowledged it? Dr. Beales has himself described the rage of the family toward me. And how did they meet it? Why was it not lulled at first, as I would have endeavored to do for you, Sir, or for any member of this Academy? [Applause.] Why was not this done by the physician in attendance on the family? I merely ask the question. He has declared that if I had ventured to come near the house I should, in all possibility, have suffered personal violence. This is one reason, perhaps, why, even if I had been called on, I should not have gone. But I would have gone, nevertheless. To these remarks, Mr. President, I wish to add one other. Having understood that a *post-mortem* examination was to be made, several of my medical friends called upon me and urged that either I, myself, or my representative should be present. At length, when the day arrived, Dr. Carnochan, my colleague, said it was injudicious to permit the examination to be made without one of us being there. I deputed him, therefore, to claim of Dr. Mott the privilege of being present. In accordance with this ar-

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rangement he drove down in his carriage, but was too late; the examination had already taken place. [Applause, which was immediately put down.]

A debate ensued, which was terminated by a motion to lay the whole subject on the table, when the Academy adjourned.

The reader has now before him the whole case, so that each may form his own conclusions, it being our purpose to do equal and exact justice to all parties. If either of them are dissatisfied, our columns will be open, and we shall take pleasure in correcting any errors or supplying any omissions.

ANÆSTHESIA AND DR. HORACE WELLS.

A large and spirited meeting of the citizens of Hartford, Conn., was lately held in that city, in which the physicians, dentists, and scientific men of Connecticut participated. The Hon. Truman Smith delivered an address, in which he reviewed the recent course of Dr. Willard Parker, Dr. Mott, and Dr. Francis, of this city, with great causticity, reading their affidavits in favor of Dr. Wells, and their late contradictory letters, certificates, &c., in aid of Morton's swindle. We observe that Judges Williams, Storrs, Ellsworth, Brockway, and other legal gentlemen were present. The following resolutions were then adopted:

Resolved, That this meeting return their thanks to the Hon. Truman Smith, for his generous and able vindication of the rights of the late Dr. Horace Wells, of this city, as the discoverer of the principle of anæsthesia as applied to medicine and surgery.

Resolved, That it is the sense of this meeting that the credit of having made the aforesaid discovery, and of successfully introducing it into practice, is due to Horace Wells, M.D., and we cherish for his memory a sentiment of profound respect for having conferred so great a boon on humanity.

Resolved, That whatever benefactions the generous and philanthropic may be disposed to accord to its author, will, in the judgment of this meeting, be misdirected and misapplied, unless the same be bestowed on the family of Dr. Wells, now resident in this city.

Resolved, That we believe this subject is pre-eminently worthy the attention of our citizens, that the claims of Dr. Wells, a public benefactor, may be asserted, and we advise that a subscription be taken up for the purpose of bringing the facts more fully before the world.

Resolved, That Doctors P. W. Ellsworth, G. W. Russell, G. B. Hawley, P. M. Hastings, and B. G. Whitman, Esq., be a committee to take such measures as they may deem expedient to realize the object above mentioned.

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NEW YORK SANITARY ASSOCIATION.

This is among the new projects of the day, and after numerous caucuses a Constitution has been agreed upon, and organization will follow. Drs. Harris, Reid, Griscom and Watson seem to be the leaders in this movement for reform in the Health Department of the city, and they are nobly aided by public-spirited citizens, who concur that something should be done in this regard irrespective of politics, and agree with the claims of our profession, that medical offices should be filled by medical men, and not by party demagogues who know nothing of sanitary science, and care less, going in only for the spoils.

The Hon. Mayor of the city favors this view, as he has shown by nominating a medical man for the office of City Inspector, who, by the City Charter, is the Executive head of the Health Department, and whose office is nevertheless burdened with the business of cleaning streets, the care of the public markets, &c. The confirmation rests with the Board of Alderman, with whom the patronage of the office in appointing subordinates, &c., is so important, that their action is delayed, and our lucky neighbor who has the nomination is meanwhile suspended *in dubio*. The former City Inspector holds over until his successor is appointed—an event which, while the Aldermen linger over the new nomination, is uncertain. Political considerations, both at Albany and here, prompt to the anticipation of still farther delay, so that the result cannot be predicted at present. If the present nominee should be rejected, the Mayor will name another immediately according to law, but while they suffer the nomination to be delayed in the Committee to whom it is referred, no appointment is possible.

Central Ohio Lunatic Asylum, Columbus, Ohio.

The 20th Annual Report is before us, and authorizes the inference, that under the superintendency of Dr. R. Hills and his able assistants, the institution is prosperous and useful.

NEW YORK STATE INEBRIATE ASYLUM.

A full account of the ceremonies, addresses, &c., at the laying of the corner stone of this great and noble institution, in Binghamton, N. Y., has just appeared, with an appeal in its behalf, by J. Edward Turner, M.D., addressed to the present Governor.

The death of its first President, B. F. Butler, Esq., is a severe blow thus early in its history. We observe, however, that he remembered this charity in his will.

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NEW JOURNALS AGAIN!

The Semi-monthly Medical News, Edited by Professors S. M. Bemiss and J. W. Benson, and published at Louisville, Ky., has just reached us. The first number is excellent, and we welcome it to our list of exchanges. Price $3 per annum, in advance. A novel feature is, that Jacob Smyser, Esq., sustains the enterprise, and receives its dedication. We should like to dedicate ours on the same terms.

Another! a "Medical Gazette" is announced at Louisville, also a semi-monthly, edited by a Dr. Frazee. We have not seen it, nor care to see it, unless the editor can find a *name* for it without stealing ours.

DR. McCORMAC, OF BELFAST,

Is out with another pamphlet, "Theory of Consumption," which he addresses to the French Imperial Academy of Medicine. He still stoutly maintains, that the great cause of pulmonary consumption is breathing vitiated air; and that prevention and cure are to be sought chiefly by the ventilation of sleeping chambers everywhere, but especially in the habitations of the poor. His zeal and industry are commendable.

EXSECTION OF THE OS CALCIS.

This operation was performed successfully at the Emigrants' Hospital, by Professor Carnochan, on his last clinical day; as also a single and double amputation, by the same surgeon. The opportunities for students to learn clinical surgery on Ward's Island are unsurpassed, so numerous are the patients, and so frequent are operations in that large hospital.

NOVEL SURGICAL PROCEEDING.

Professor Carnochan, last month, tied the common carotid for elephantiasis, involving the right side of the head and face. The tumor, which was immense, became considerably softer after the ligature was tied. The artery was unusually deep, on account of the extent of the morbid mass below the lower jaw.

JOCOSE CLINICS!

We advise all to turn to the article on this subject, from our Boston contemporary, which we reproduce in this number. It shows how the ludicrous twaddle of certain bogus clinical teaching in New York strikes others, and we hope that Bedford & Co. will "reform it alto-

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gether," or at least keep it out of the press; else we shall be tempted to republish Prof. Puffer's Lecture in the University of the Moon! The attempt made to revive the defunct American Medical Lancet, of Plattsburg, under another name, in New York, begins to be understood. We are sorry to see that several of our brethren have consented to ride in the tail-end of the cart, for the ventilation of the Professor of Gas. It is surely a "psychological phenomenon."

Chancellor Ferris, of the N. Y. University, delivered an able address on the founding of the Law Department. It is dignified, laudatory and hopeful. Judge Clerke has led off the Law Faculty in fine style. He is scholarly and eloquent in a high degree, and it is said that this Law Faculty is not excelled in the country. We wish them success.

RECEIPTS for 1859—Continued.

Drs. Meakim, Paine, Goldsmith, Chalmers, Roberts, Voss, Levings, Linsly, Passmore, Stillwell, Chilton, Eager, Pratt, Mott, Hartt, Heywood, Crane, Hoffman, J. Davis, Parmly, Fitch, Kennedy, Woodward, Sharrock, Barstow, Cullen, Doremus, Harris, Miner, Jr., Storer, Griswold, H. Green, Beales, Sayre, Belden, Frankel, Cairns, Osborne, Hyslop, Francis, Freeman, N. Y. Hospital, Miner, Sen., Brown, T. T. Green, Underhill, N. Allen, McCall, Thweatt, Coon, P. Van Buren, Sims, Jackson, J. Miller, Regensburger, J. M. Smith, Marcy, Emmet, Cammann, Post, Miller, Telkampf, J. R. Wood, Newby, McClelland, Rowe, Bergold, Belcher, Rannay, Pope, Darnell, Swift, Clark, Peaslee, Collins, Morton, Hoyt, Elder, Van Antwerp, H. G. Cox, Monkur, Platt, N. Palmer, A. Smith, Farlin.

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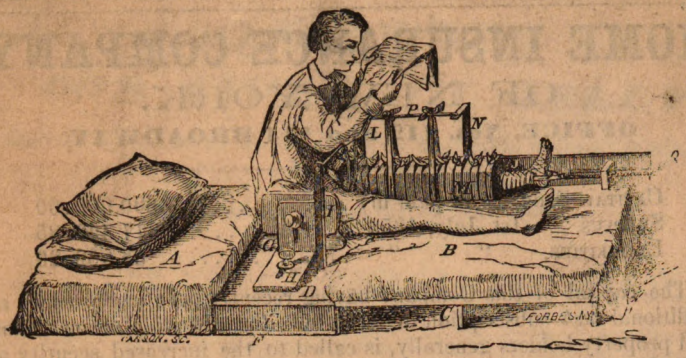

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